

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXX.

NEW YORK, SATURDAY, JUNE 19, 1897.

No. 25.

ORIGINAL ARTICLES.

ERYTHROMELALGIA ASSOCIATED WITH RAYNAUD'S DISEASE.

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On the 28th of October, 1895, I was called in consultation with Dr. Monroe to see Mrs. H., aged thirty-eight, the wife of a coachman, living in a poorly ventilated house with unfavorable surroundings. The patient's family history presented nothing noteworthy. Her parents were dead, but had reached old age; her brothers and sisters were living and well. She had given birth to three children, and had had one miscarriage. Two of the children are living and enjoying good health. One daughter died at the age of thirteen years of diabetes. The patient had always been a hard-working woman, having done all her own work, including large washings during the summer and winter months. During the winter, she suffered greatly from exposure, due to her impoverished circumstances and environment.

Until February, 1893, she had enjoyed perfect health. She denied specific disease. Her usual weight was over two hundred pounds. She had already lost considerable flesh when I was called to see her. Menstruation was established at thirteen. It had never been markedly abnormal, but of late had been somewhat scanty. She had never suffered from disease of the nervous system, and was not considered neurotic or hysteric by her attending physician, who had seen her at short intervals during the preceding month. Her present illness dates back to the winter of 1893, when she commenced to suffer from severe headaches, mainly frontal, though at times occipital, which were almost always associated with a sense of fullness in the head, and with more or less flushing of the face. It was for the relief of this symptom, which had become alarming and painful, that I was called to see her. In connection with the headaches, she occasionally had been annoyed, during the extreme hot and cold weather of 1894-5, by a burning sensation in the palms and backs of both hands.

The volar surfaces of the fingers of the right hand were most painful from the beginning, and at this time, as well as during the subsequent course of the

disease, became the seat of the most intense suffering and greatest pathologic change. During the early months of the disease, and until February 5, 1896, when I was again called to attend her, the pains were paroxysmal, and were always associated with a maculo-papular erythema of an evanescent character, which disappeared with the burning and with the pain. These eruptions were accompanied finally by the severe headaches already mentioned, until the middle of February, when the latter ceased,

FIG. 1.



Right hand, showing persistent papular eruption.

and have never recurred. Early during February, the left hand showed a few spots of erythema, and was painful to pressure only, while the right hand, by the end of February, was studded with characteristic shot-like papules of erythema over the palm at numerous points, some reaching above the wrist. These papules were exquisitely tender, and were associated with continuous burning, stinging, and throbbing, making it impossible for the woman to use her hand, to bear anything upon it, or to move it without suffering untold agony. There were no symptoms referable to the left hand after March, 1896. After

this date the erythema and pain became continuous in the right hand.

Now commenced a period of torture and continued suffering which has never been equalled by any experience which I have had with peripheral pain. The words of Musser are true, when, in speaking of the condition present in this disease, he says: "I know of no peripheral pain which is the cause of greater agony." Erythematous spots were continually present, sometimes as many as eight or ten on each finger, with a reddened area surrounding the nails. These papules during the acute exacerbation were tense, shining, and so exquisitely tender that the hand could not be rested even on a soft pillow, but was constantly held quiet, while firm pressure was made with the left hand above the wrist to prevent sudden movements and jerkings of the fingers during the paroxysm of darting pains and transmission of movement from the body. The patient was unable to sleep or eat more than was sufficient to keep her from starvation.

Bemoaning her fate with tears in her eyes, she came to me frequently begging for relief, and in her agony suggested her willingness to have the hand amputated rather than continue in her misery. She could explain her sufferings only by repeating day after day that "she felt as if her hand was being consumed by a living fire, and that hundreds of pins were being pricked into each tender spot." At times there were sudden darting or shooting pains into the fingers to the tips. The hand, wherever the spots were present, both on the palmar and dorsal surface, was covered with thousands of sweat drops during the more severe pains, and after prolonged pain the epidermis was sometimes loosened. At times the smaller papules were found in clusters, and occasionally became confluent to form the larger and more tense patches which, as they disappeared, left no vestige of their original seat save for about twenty-four hours, when a small nodule could be felt under the skin, less tender than during its blushing period. Never was there evidence of hemorrhage in purpuric spots, or of ultimate ecchymosis. As already stated, at this period the hand was never without some papules, and the lesions about the finger tips were continuous, their brightness and tension varying, being most intense and severe during the frequent acute exacerbations of her subjective symptoms.

From March, 1896, until about the fifth of September, there was no material change in the condition of the patient. All movement of the right hand and arm was limited owing to the persistence of her symptoms, and a moderate atrophy of tissue resulted. In the fingers there were trophic changes;

they seemed elongated and spindle-shaped, and somewhat stiff. The radial pulse was the same at both wrists. An examination showed the right hand to be hypersensitive (hyperalgesic). Touching any erythematous patch with the estheiometer caused pain to continue for some minutes after contact. Tactile sense was somewhat tardy, but not materially changed. There were no changes in cutaneous sensibility in the normal skin of the diseased hand, nor in that of other parts of the body. Reactions to both the faradic and constant current were normal in all the hand and arm muscles. There was absolutely no reaction of degeneration in the smaller muscles of the hand.

FIG. 2.



Profile view of right hand, showing position of fingers.

It was discovered that for years the patient had suffered from cystocele, uterine prolapse, and rectocele, which conditions were associated with a urine of normal specific gravity containing a trace of albumin, bladder epithelium, bacteria, and pus. This in all probability was aggravated by the constant pressure of residual urine due to the bladder prolapse.

During all these months treatment availed but little. The writer went through the grand galaxy of remedies usually recommended for the relief of peripheral pain, with indifferent results. The iodids and mercurials were given a fair trial and were found in-

sufficient to control the disease. Electricity even in small dosage increased the pain. Opium and morphin were never given, as the diagnosis presupposed an unfavorable prognosis; chronicity was expected and I feared the formation of the opium habit. Occasionally it was imagined that salipyrin, antipyrin, and acetanilid, caused slight relief.

One of the most interesting of the many phenomena which I noticed in this case occurred on September 12, 1896. The patient came to my office for the purpose of having another drawing made. The hand, with the exception of the thumb, presented about the usual appearance and was equally troublesome. It was noticed that the thumb was more deeply colored than usual below the terminal pha-

FIG. 3.



Palmar surface of the hand, showing the smooth stump after complete amputation of the thumb by dry gangrene. Different views of the stump are given in Figs. 1 and 2.

lanx, while the tip was a brighter red than ever before. The deep congestion suddenly faded, the entire finger assuming its former color. This evanescence was sudden and decided.

During August it was noticed that there were several erythematous spots, varying in size from a pin-head to a split pea, on the left cheek, and one large papule on the left tragus. While these were less sensitive than those on the hand, their advent was associated with considerable suffering along the branches of the infra-orbital nerve, and persisting, they become more and more tender to pressure. They were bright red, hard, and became pale on pressure. The larger papules, more particularly that

on the tragus, added to the discomfort of the patient by a constant burning which became more annoying as it became more tense.

About the end of the first month of this eruption, the erythema gave way to a characteristic blueness, and the pain grew less; finally, all the original spots of erythema became gangrenous and sloughed. The deepest slough came from the tragus, and in about eight weeks from the beginning of the facial erythema this process had run its course. The gangrene was followed by repair, and the pain in the face and ear was relieved. The only other superficial loss of tissue noted in this case followed an erythematous spot about the size of a three-cent piece over the middle and at the free margin of the left sternocleidomastoid muscle. This behaved much like the facial gangrene, was not as deep as that on the left tragus, and healed without treatment.

This brings us to the more important and unique complication of this rare symptom complex. The striking bright color of the end of the thumb has already been mentioned. There was no coldness anywhere about the fingers, there had been no change in symptoms, and the case seemed as hopeless as ever before. On the 16th of September there were positive evidences of gangrene of the terminal phalanx of the heretofore erythematous thumb. The tip became cold, blue, shriveled in appearance, and had a distinct V-shaped line of demarcation. After a process of dry gangrene it separated entirely on October 21st, leaving the articular surface of the bone below clean and smooth. In another month this had completely healed.

A word concerning the behavior of the erythema and pain after the beginning of the gangrenous process: While the erythema was by no means controlled, but few new papules appeared; these were less painful, lasted a shorter time, and their disappearance was followed by less subcutaneous infiltration than had been experienced during the active period of the disease. These were erythematous at all times and presented the same appearance as those which preceded the gangrene. The macular erythema surrounding the finger tips did not fade until the disease had run its course. The burning, stinging, and darting pain became less, was more easily endured, and ceased entirely after the separation of the finger tip on October 21st. Shortly after this occurrence there were no symptoms referable to the hand though the trophic changes are seen in the fingers. These continue somewhat stiff. The muscles have not yet fully regained their normal development. The photographs kindly taken by Mr. Van Duyn show the condition of the hand at the present time. There is no sign of erythema. Since her re-

covery the patient has successfully withstood an alarming attack of pneumonia.

The history of the case justifies the diagnosis of *erythromelalgia associated with true Raynaud's disease*.

In 1872 a paper was written by Weir Mitchell¹ describing a peculiar condition in which a foot or hand (usually a foot) became red and at the same time painful, without attending phlegmon or inflammatory changes. But little notice was taken by the profession of this communication until the same author, in July, 1878, in an article "On a Rare Vasomotor Neurosis of the Extremities, and on the Maladies with which it May Be Confounded,"² reported fifteen cases of the disease, which he elaborated in his usually graphic style. He suggested the propriety of "labeling" the condition associated with erythema and pain in the extremities "erythromelalgia."

In the preparation of this paper the writer has searched all available literature on the subject at his command, and appends a bibliography which, if studied, will be found to give reference to forty-four cases, including the one above detailed. In this search it was discovered that the acute observer and clinician, Graves,³ in 1843, described a peculiar condition of the extremities associated with symptoms much like those mentioned later by Mitchell, in which he suggested that the nerves and arteries of a part independent of the heart could affect local circulation sufficiently to give rise to local symptoms of a peculiar and unique character. In spite of the detailed description of erythromelalgia given by Mitchell, but few cases of this condition (Grenier,⁴ 1873, Sigerson and Vulpian⁵ 1873) were reported for a number of years, and these without reference to the original articles. So rarely was the disease mentioned in medical literature that the writer finds no reference to erythromelalgia in the Index Catalogue of the Library of the Surgeon-General's Office. Until 1892 the only case mentioned in German medical literature is found in the work of Seeligmüller⁶ on "The Diseases of the Nervous System."

Lannois,⁷ in 1880, in a thesis on this subject, could find but twenty-four cases to report, including those of Weir Mitchell, with others,⁸ which were positive and two or three which were doubtful.

An interesting coincidence was the presentation of three cases of this affection at a meeting of the *Gesellschaft der Charité-Aerzte* by Gerhardt,⁹ Senator⁹ and Bernhardt,¹⁰ after which a thorough discussion followed, and several present mentioned conditions met in practice resembling very closely the cases reported. These articles are cited in the appended bibliography.

From 1880 to 1892 Senator in his search could find but four new cases. Besides the references already given, the writer found the subject most thoroughly considered in the *Encyclopadische Jahrbucher*¹¹ of 1893-1894; while the most exhaustive article which has thus far appeared is found in the *Berliner Klinische Wochenschrift* by Lewin and Benda.¹² The latest, and one of the most scientific considerations of erythromelalgia yet published, is given by Dehio¹³. These with many others of great value and interest are cited in the bibliography which accompanies this paper.

The clinical history of the case reported is full of interest, not so much because of the fact that it pictures a case of erythromelalgia, but for the reason that it proves beyond question the fact that Raynaud's disease may accompany this condition, a complication which has been denied heretofore by some writers on this subject.

In Collins' article, which appeared in Dercum's work on "Nervous Diseases," the positive statement is made—in considering the diagnosis of Raynaud's disease—that "Erythromelalgia may be confounded with Raynaud's disease when local erythema occurs in the second stage, but it may be differentiated by its mode of onset and the fact that erythromelalgia never goes on to gangrene."

After giving Dr. Collins a brief history of my case he kindly wrote, that "from the data which I have at hand, I have never seen a case of erythromelalgia associated with or followed by gangrene, and I have had occasion to see many of these cases during the past few years." He said, further, "It seems to me that in your case there is no doubt that the gangrenous process has followed on the symptom complex constituting erythromelalgia. . . . I shall keep your case in mind when I correct my article for the next edition."

The writer's case stands practically alone in medical literature so far as he has been able to discover, for no case has come under his notice in which the last stage of Raynaud's disease accompanied erythromelalgia. I have found but three references which bear *directly* upon this phase of the disease. Morell-Lavalle¹⁴ reported a case in which the symptoms of erythromelalgia alternated with those of partial local syncope. The second case is reported by Mills¹⁵, in which the patient, a woman aged twenty-three years, after two years of persistent erythema of the extremities, developed symptoms resembling the milder Raynaud phenomena.

The third case—that of Dehio¹³—was treated November 28, 1894, by resection of a small portion of the ulnar nerve above the wrist, and an equally small piece of the ulnar artery. During the following

April (1895) the tip of the little finger of the operated hand became black and a small piece of bone with pus and blood escaped.

The propriety of changing the diagnosis to Raynaud's disease after the advent of gangrene was naturally considered. The unusual length of time during which the erythromelalgic symptoms continued, with their persistence after the fully developed gangrene, led me to conclude that the latter was a complication depending upon the former; hence I preferred to continue the diagnosis of erythromelalgia and speak of the Raynaud's disease as an accompaniment and sequel.

The question of the true pathology of the subject under consideration has never been settled. Erythromelalgia is conceded by almost all authorities to be a condition depending upon vasomotor disturbance. Whether it ought to be considered an independent disease is by no means decided, though Dehio believed that his case justified that conclusion. We are not ready to assert with any degree of certainty that it is always dependent upon the same pathologic change. Until our knowledge is enriched by positive pathologic data, we are safe in considering the symptom complex, dependent on either peripheral, cerebral, or spinal changes, particularly involving the cervical and lumbar portions of the cord, most likely the posterior and anterior horns of the gray matter. That a close relation exists between erythromelalgia and Raynaud's disease there can be no doubt when the symptoms of the reported case and those to which I have referred are considered (Osler¹⁶). The early headache, the erythema, the pain, and the final gangrene, were dependent upon the same underlying cause.

Dehio's case, already mentioned, is the only one on record in which an examination has been made of the artery leading to the diseased area. Microscopic section showed marked changes in the intima, which materially narrowed the lumen of the vessel.

The ultimate gangrene in my case can be explained in no other way than by considering it the result of secondary vascular change, a conclusion which is strengthened by the overwhelming evidence of changes in the arteries, particularly in the intima, consequent upon long-continued distension or vasomotor paralysis. Thoma,¹⁷ in his brilliant and convincing article which appeared in Virchow's *Archiv*, established the fact beyond contradiction that compensatory changes take place in arteries which have remained distended for a considerable time, and which in truth are too large for the blood which courses through them. In my case it is safe to conclude that this compensatory effort finally caused complete occlusion in some of the smaller arteries

supplying the terminal phalanx of the thumb, and death of the part resulted.

REFERENCES AND BIBLIOGRAPHY.

- ¹ Weir Mitchell, *Phila. Med. Times*, 1872.
- ² Weir Mitchell, *The Am. Jour. of the Med. Sciences*, July, 1878.
- ³ Graves, "Clinical Lectures," 1843.
- ⁴ Grenier, "Bordeaux Medic," 1873.
- ⁵ Vulpian, "Leçons sur l'Appar. Vasomoteur," Paris, 1873.
- ⁶ Seeligmuller, *Wenden's Sammlung kurzer Med. Lehrb.*, Bd. V., 1892, S. 379.
- ⁷ Lannois, "Thèse Paris," 1880.
- ⁸ Senator, *Berl. klin. Wochenschr.*, 1892, No. 45.
- ⁹ C. Gerhardt, *Berl. klin. Wochenschr.*, 1892, No. 45.
- ¹⁰ M. Berhardt, *Berl. klin. Wochenschr.*, 1892, No. 45.
- ¹¹ Eulenburg, *Encyclop. Jahrbucher*, 1893-4.
- ¹² Lewin and Benda, *Berl. klin. Wochenschr.*, 1894, Nos. 3, 4, 5.
- ¹³ Dehio, *Berl. klin. Wochenschr.*, 1896, No. 37.
- ¹⁴ Morell-Lavalle, *Berl. klin. Wochenschr.*, 1894, p. 146.
- ¹⁵ Mills, foot-note, *Berl. klin. Wochenschr.*, 1894, p. 146.
- ¹⁶ Osler, "Practice of Medicine," New York, 1896, 2d edition, p. 1016.
- ¹⁷ Thoma, *Virchow's Archiv. für Path. Anat.*, Bd. 93, 113-116.
- Anche-Lepinasse, *Revue de Médecine*, 1890, p. 1049.
- Annual of the Universal Medical Sciences*, 1894, vol. II., p. C-58.
- Baginski, *Verhandl. der Berl. Med. Ges.*, 1892, S. 241.
- Dreschfeld-Morgan, *Lancet*, 1889, 5 I., p. 11.
- Eulenburg, *Berl. klin. Wochenschr.*, 1892, p. 48.
- Eulenburg, *Deutsche Med. Wochenschrift*, 1893, p. 1325.
- Eulenburg, *Neurolog. Centralblatt*, 1893, p. 657 ff.
- Eulenburg, *Verhandl. der Berl. Med. Gesellschaft*, 1892, No. 45.
- Graves, "Clin. Lect.," 1864, p. 826.
- Henoch, *Gesellsch. der Charité-Aerzte*, 30, VI., 92.
- Henry, Frederik P., "A Case of Myxedematoid Dystrophy" (*Jour. of Nerv. and Ment. Diseases*, 1890).
- Koch, *Berl. klin. Wochenschr.*, 1892, p. 1146.
- Landgraf, *Gesellsch. der Charité-Aerzte*, Sitzung. vom 30, June, 1892.
- Lewin, G., *Berl. klin. Wochenschr.*, 1894, p. 145.
- Marcacci, "Giorn. delle Malattie della Pelle," 1876.
- Machol, *Berl. klin. Wochenschr.*, 1892, No. 51, p. 1319.
- Morgan, *Lancet*, 1889, 5 I., p. 11.
- Mackenzie, Stephen, "Lannois," I., c., p. 40.
- Marcacci, "Giorn. delle Malattie della Pelle," 1887.
- Morgan, *Lancet*, 1889, 5 I.
- Nieden, A., "Ueber Erythromelalgie und Augenleiden," *Arch. f. Augenhh.*, xxviii.
- Paget, James, *St. Bartholom. Hos. Rep.*, 1871, p. 67.
- Sigerson (*Progres Méd.*, 1874), "Lannois," I., c. p. 41.
- Stille, H., cited in Weir Mitchell's paper in the *Am. Jour. of the Med. Sciences*, 1878, July.
- Strauss, *Societ. Méd. des Hôp.*, Seance du 29, Mars, 1880.
- Strumpell, *Krankh. d. Nervensystems*, 2 Aufl., Bd. 2, S. 127.
- Sturge, Allen, "Rare Vasomotor Disturbance of Leg," *Trans. of Clin. Soc. of London*, *Brit. Med. Jour.*, 1879.
- Vulpian, "L'Appareil Vasomoteur," t. II., p. 623.
- Woodnut, *Jour. of Nerv. and Ment. Diseases*, 1884, October, S. 627.

Factory Inspection in Newark.—Chief Factory Inspector of New Jersey John C. Ward is making the rounds of the bakeries and factories in Newark and Essex County. So far no violations of law have been found. Child labor is still in evidence, but largely through evasions of the law by parents. Children are required to have certificates before they are employed. The old unsanitary condition of bakeries has been abolished by the law. The baking in all places is done in well-ventilated, clean rooms. The improvement noticed is due to rigid enforcement of the law, which resulted in the successful prosecution of several violators.

DIAGNOSTIC AND THERAPEUTIC CONSIDERATIONS WITH RESPECT TO CERTAIN DISEASES OF THE UPPER AIR-TRACT.¹

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I FEEL quite sure that none of those who are present will be inclined to question the great advances which have been made during the past twenty years or more in the diagnosis and treatment of many affections of the upper air-tract. Thanks to the use of the laryngoscope and rhinoscope, we have before our eyes the diseased appearances of the throat and nose. Taken with the functional disturbances which accompany them in greater or less degree, and with microscopic investigation, frequently of diseased tissues which may be and are properly removed at times by surgical means, a very accurate statement can be made of the nature of the lesion. Whenever, for sufficient reason, pathologic examination cannot be made during life, as, for example, when no operative procedure has been instituted, and if death occurs later, investigation enables us to define closely the diseased process.

While the foregoing will doubtless be admitted, the other side is surely true, *viz.*, that with the greater insight into certain conditions which at first appear to be local in their origin and march, the constitutional influence is apt to be ignored in a measure, and the symptoms in the main are accounted for too much by mere local changes. Thus it has become true that local applications, operations, various, simple, or difficult, are believed to ameliorate or cure, and the general system is comparatively little if at all considered or attended to. It has seemed to me that the later German school of medicine is largely responsible for the somewhat narrow and unfortunate interpretation of diseases of the upper respiratory tract. General applications of disease—general pathology—the philosophic combining of many local expressions of impaired function under one head—that, has been, in my judgment, the work of the French school. With them it is not new. It goes back far. It began, indeed, with Broussais, was carried on by Bouillaud, Trousseau, Grisolle, and those of our own day and time, and still remains. There is a *juste milieu*, or happy medium, and this is the true goal of the diligent worker, the careful observer, the searcher after truth.

Ten or fifteen years ago every well-educated physician who had given even limited attention to the study of nasal or throat affections provided himself with a suitable atomizing apparatus, and was convinced that by frequent applications of a spray, as-

stringent or soothing in nature, he could effectually allay many inflammatory affections. Even at that time internal medication of the upper respiratory tract was considered to be of secondary importance by very many men, skilled and learned in their art. By and by they found that these inflammatory conditions were not always relieved or cured after this manner, and they quickly sought the solution of the problem. In the nose, it was affirmed, hypertrophy of the turbinates, or a deviated septum, existed, and these were the underlying pathologic conditions which occasioned repeated acute inflammation locally.

When this opinion was firmly established we know how soon the period came when frequent operations on the offending structures were performed. The turbinates were cauterized, chiseled, trephined, excised. Numerous ingenious devices rapidly accumulated for straightening the septum, for excision of redundant tissue, for planing down all bulging or irregularities. Despite all this doing, and the rapid increase of the specialists in diseases of the throat and nose, it was found that nasal and throat affections were none the less prevalent. To-day I am happy to say there is a manifest tendency on the part of a few to acknowledge the governing forces in the human economy. These physicians recognize at present that a septum is often irregular and deviated among perfectly healthy individuals; they know that the better way of keeping down a growing hypertrophy of the soft tissues over the turbinates is to give mild aperients to act on the liver, to treat with appropriate, general means every acute coryza which develops, and not let it run its course unchecked. They know that the gouty, rheumatic, lithemic, malarial, syphilitic dyscrasias will excite and produce inflammatory action of the pituitary membrane despite the most careful hygiene, unless wise indications of treatment are carried out carefully and intelligently. Nor is this all. They know that fatigue, bad air, damp, changeable atmospheric conditions will also promote these manifestations; and yet they also recognize that there are times when a conservative local treatment, or well-considered operation, is the only satisfactory method of securing good results.

Again, some of my *confrères*—the specialists—know at present that when a surgical procedure is adopted, in order to be successful attention should be paid to surgical methods; and by this I do not mean merely to understand what operation should be done, and to have the skill and courage to perform it; but they must also have the means and opportunity and knowledge to treat the patient's nose with aseptic precautions before, during, and after the operation. In this way, and this way alone, are

¹ Read at the Twelfth Annual Meeting of the Association of American Physicians, Washington, D. C., May 5, 1897.

many operations justified by the ultimate benefit which the patient receives. It behoves the general practitioner to recognize when and where he can acquit himself properly and conscientiously. In order to know this much it is not essential to be a specialist of nasal and throat affections. It is necessary, however, to acquire moderate skill in the use of the rhinoscope and laryngoscope, and afterward to make use personally of the correct treatment or pass the case over for awhile, at least, to one who has sufficient knowledge and conscience to treat it properly.

Take, for example, a very large number of persons who have a so-called nasal catarrh. They may be adults or children, and the condition may be marked by obstruction of the nasal passages, which is carried to that degree, very often, that they become more or less habitual mouth-breathers. Some there are in whom the mouth-breathing occurs only at times, and during or subsequent to an attack of coryza; others there are who for many weeks or months, and especially at night, in the recumbent posture, cannot get air enough through the nasal passages. Very many cases of both types can be completely relieved by one or more mild cauterizations with glacial acetic acid. This acid is rapidly and efficiently applied to the nasal mucous membrane by means of a flattened probe wrapped in cotton. A two-per-cent. solution of cocain is sprayed into the nasal passages a few moments previous to the application of the acid, and all pain is abolished. The nares are covered with a little vaselin in advance, and all risk of irritating the skin is avoided. An antiseptic spray through the nasal passages after the cauterization, and the use of a borated cotton plug in the nares for a few hours, takes away the bare possibility of any subsequent complication. In a few days the patient blows into his handkerchief a few shreds of mucous membrane, white in color, and great, if not absolute, relief of breathing quickly follows.

Another symptom of a very frequent ailment in adults and children, with or without nasal obstruction, is the frequent dropping of mucus or muco-pus from the nasopharynx into the throat. It occasions cough, bad breath, and disordered digestion. To men and women it is a source of extreme annoyance, and even disgust, from the fact that they are frequently compelled either to swallow this offensive, nauseous secretion or to expel it by efforts of hawking and expectoration. Children are awakened at night with choking attacks, laryngismus, night-terrors, obstructed breathing, thus occasioned. How can it be relieved? By general medication alone? By change of air? By dieting? Very rarely, if ever. Will inhalations or atomized solutions through

the nose relieve the condition and obviate the subsequent phenomena? Frequently they ameliorate for awhile; very exceptionally they do more. In adults direct astringent or antiseptic applications to the nasopharynx of tincture of the perchlorid of iron and glycerin, compound tincture of iodine, or of carbolic acid and glycerin will often be of great service in a very short time. To still further augment their value, however, we must often attend to general conditions, and here, again, anemia, impaired nutrition of different causation, the herpetic diathesis, must be taken into account and wisely treated. For many such a sojourn at an alkaline or sulphur spa abroad will help wonderfully to produce a lasting cure.

In children we should constantly bear in mind that such symptoms, if persistent, will often indicate a more or less considerable development of adenoid tissue. Here, again, the local applications before mentioned may prove to be very useful; but if the mass of tissue be at all pronounced, and the child be in relatively poor, general health, they are insufficient. To secure absolute relief we must depend on direct removal of the tissue itself. If the amount be small, it may be removed in many instances with the nail of the index-finger, with is introduced behind and above the palate to scrape the nasopharynx thoroughly. The finger should be protected with a suitable finger-stall in rubber or metal, and the hand washed with soap and water, and bathed with alcohol before its introduction. The child's head is bent forward over a proper receptacle, and after the scraping is finished (which takes only a few moments) the child is urged to blow the resulting blood, mucus, and shreds of adenoid tissue from the nose, and also to expectorate them from the throat.

Frequently such operation as this is insufficient or not indicated, and to establish a complete cure a specialist's operative treatment should be secured. This means preferably the use of Gottstein's curette or of some form of forceps, usually aided by means of more or less profound local or general anesthesia with cocain, nitrous-oxid gas, bromid of ethyl, chloroform, or ether.

The presence of the so-called hypertrophied lingual tonsil or lymphoid tissue, which frequently enlarges in front of the epiglottis in the glosso-epiglottic fossa and encroaches upon the larynx, is often ignored or improperly treated. Many times I have observed cough—irritative, ineffectual, obstinate—thus occasioned. The use of cough-mixtures, inhalations, and sprays, are relatively useless, and even climatic changes, cod-liver oil, etc., are ineffectual to cause notable amelioration in this local state. In many instances, however, this tonsil becomes acutely inflamed and swollen, and when such is the case it is

without doubt produced by a rheumatic or gouty dyscrasia. To ignore the use of the salicylates and colchicum means either no cure or surely a very protracted course of treatment.

Whenever the tonsil is chronically enlarged and occasions globus hystericus (so-called) or choking sensations, and a constant tickling and irritation in the throat near the larynx, recourse must be had first to local applications of iodine, carbolic acid, or iron. If these fail, repeated applications of the galvanocautery will ultimately afford permanent relief in many instances. In the most severe cases ablation by means of Chapelle's tonsillotome, or some similar instrument is our sole available and suitable resource. Under these circumstances a specialist's services are usually required.

Take, now, numerous examples of laryngitis, acute, subacute, or chronic in nature. Is there no such disease as an acute inflammation of the larynx? One bold specialist of wide renown has almost dared to affirm it. So convinced are some laryngologists that acute laryngitis proceeds from and is almost wholly caused by inflammation, or obstruction of the nasal passages, that they give the larynx itself little or no treatment—local or general—and yet how erroneous such views are. I am here prepared to affirm, and I still believe, that there is such a disease, and a tolerably frequent one, as acute laryngitis. I believe it may be intercurrent with inflammation of the nose, pharynx, trachea, and bronchi. I believe it may be limited in a great degree to the larynx itself, and in either case be in no sense dependent upon the intranasal condition. I believe, also, that there are numerous instances in which the acute laryngitis is preceded by nasal and pharyngeal inflammation.

In many examples of acute laryngitis I should consider myself derelict in the highest degree if I did not combine general and local medication. When, however, we come to the treatment of the subacute form of laryngitis of simple catarrhal or inflammatory type, I rely mainly upon the use of local applications of iron, iodine, zinc, copper, and carbolic acid, aided with mild antiseptic sprays. If the catarrhal condition continues or extends to the trachea or bronchial tubes, I feel called upon to make appeal to anticatarrhal agents internally, among which I rank ipecac, ammonia salts, and beechwood creosote highest.

If the laryngitis be chronic, and either the syphilitic or tuberculous nature of it be suspected or confirmed, we must combine appropriate local and general means to attain the best results of treatment. In order to follow up such cases intelligently and judiciously we should make frequent, skilful use of the

laryngeal mirror and the armamentarium of the well-informed laryngologist.

Is it wisdom to inject the soft parts with antiseptic preparations or scrape out ulcerated tissues and apply painful caustics in order to effect beneficial local changes, if possible, of laryngeal tuberculosis? I believe not, in the large majority of cases.

My conviction in this matter exists because, as a rule, the concomitant intrapulmonary condition is of such a character—of such an advanced stage of tuberculization—that I regard it as almost criminal to make a poor sufferer submit to additional pain for a prospective gain of little or no value. Still, there are a few exceptions to this rule. Krause and Heryng have reported, as we know, some very brilliant results from active local interference, and he would be an ignorant or unwise practitioner wholly to disregard them in all cases.

In syphilitic stricture or stenosis of the larynx or nasopharynx it is not broad-minded to ignore what intubation or palliative dilatation may be able to accomplish in any way of relieving constant distress. Here, again, the specialist has his *rôle*, and a valuable one it is, to help us ameliorate otherwise hopeless cases.

I might prolong this paper unduly. I have written sufficient, I trust, to open a fruitful and interesting discussion of a practical and important subject. In no branch of medicine are the contrasts more frequent and essential between the general practitioner and the specialist than in what pertains to the wisely governed treatment of many affections of the upper air-tract. I am one of those who have always held—who still holds,—that the clinician, the general practitioner, should usually—not to say always—control the specialist in all branches of practical medicine. I do not mean to affirm that the clinician should invariably and always treat the patient himself. I do say he should be the guiding hand—the one whose province it is to say, in most instances, to what extent it is wise and considerate for him to pursue particular lines of work.

New York State Asylum Expenditures.—Some idea of the magnitude of the requirements of the State Hospitals for the Insane can be obtained from the following statement as to staples consumed during last year: Flour, 26,235 barrels; meat, 4,749,025 pounds; sugar, 1,012,487 pounds; coffee, 321,324 pounds; tea, 75,765 pounds; butter, 941,170 pounds; eggs, 463,160 dozen. The total consumption of coal was 97,761 tons. The expenditure during the year for provisions and stores amounted to \$1,027,697.13; total expenditure for clothing, \$179,305.64. The commission expects that the expenditures of the current year will not materially exceed the foregoing.

SYPHILIS IN PREGNANCY.¹BY ROBERT A. MURRAY, M.D.,
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THAT we do not at the present time see cases presenting the direful ravages and mutilations of syphilis which were so frequent not many years ago is due not only to a more perfect knowledge of the disease and the principles guiding its treatment, but also to the fact, to which many expert observers testify, that syphilis is less malignant and more tractable in management than formerly. This observation has, I believe, led to a false feeling of security, has diminished the apprehension exhibited by subjects of this disease, and as a result, with the removal of outward manifestations, due to the continuance of a short mercurial course, both physician and patient have ceased treatment; and the latter, on marrying, with full faith that he is cured, is rudely shocked by the direful effects to his wife and children. Later on we have those most terrible complications of nerve syphilis in the brain and spinal cord, causing ruin to health and prospects, and even death.

As obstetricians, it is our province to recognize this disease as being the most powerful factor in causing miscarriages and still-born children; and what is perhaps more distressing, children are brought into the world with, as has been well expressed by Fournier, "an inaptitude for living," to be cut down in infancy by intercurrent disease, or to die miserably from inherited syphilis. From hospital statistics these deductions become remarkably apparent; yet they are not more convincing than those obtained in private practice from a smaller number of cases. Fournier gives the following results in 167 cases of pregnancy coincident with syphilis: Cases of survival of infant, 22; cases of death of infant (abortion), premature labor, still-born, and dead shortly after birth, 145; total, 167.²

Dr. Le Pileur, physician of Saint Lazare, Paris, prepared statistics for ten years of the mortality among children, the issue of syphilitic mothers. He found that in 414 pregnancies 154 were terminated either by abortion or by premature expulsion of the still-born infant. Of 260 infants born at term and living, 141 died within a short time, and only 22 survived one month. This makes a total of 295 deaths in 414 pregnancies, that is to say, in round numbers, almost 3 deaths to 4 births. Among the children considered as "surviving," there assuredly were a certain number who succumbed later directly from the disease.

In private practice the physician is misled in finding a cause for abortion, premature labor, and still-born births by the ignorance of the mother as to the disease and by some fancied cause, as a fright, a nervous shock or a fall, which among the laity are generally considered the only causes of premature emptying of the uterus apart from criminal abortion. Again, the husband of the pregnant wife either thinks that the syphilis he had when a young man has nothing to do with the mishap, or when questioned, if the cause is suspected, will state that he had a chancre, which was only a small one, and with slight manifestations, which did not amount to much, and that he was assured by his physician that he was properly cured.

Up to the present time, unless a child that was still-born showed upon its skin the lesions of inherited syphilis, a diagnosis of the cause of the still-birth was rarely made, as our knowledge of the changes in the placenta, and in the new-born, was insufficient, and autopsy was very rarely allowed. For the protection of the patient in the future, and the prevention of premature labors and still-births, it is very necessary that autopsies should be obtained on the children whenever possible.

The Syphilitic Placenta.—Simpson, D'Outrepoint, Virchow and particularly Fränkel have shown that the changes in the placenta, and in the endometrium of syphilitic pregnant women are the same as occur in other syphilitic lesions, that is, an increase to a large extent of the fibrous tissue, and an infiltration of granulation cells into the villi with degeneration of their epithelial covering.

According to the time of infection, Fränkel states there are differences in the placenta and endometrium. If the mother is infected during the fruitful coitus there may be endometritis placentaris, characterized by the enormous overgrowth of the decidua cells, or the overgrowth of connective tissue, as well as by syphilitic disease of the villi. If the mother is syphilitic before conception; the disease of the placenta takes the form of endometritis placentaris gummosa. If the mother is infected during the later months of pregnancy, the placenta usually remains unaffected.

Fränkel states that this infiltration of the villi with granulation cells, and their consequent increase in size and distorted shape, is characteristic of syphilis, and might serve to make certain the diagnosis of the disease. In gross appearance, syphilitic placenta vary greatly, depending on the time of death of the child and on the period of pregnancy when it is expelled. If the child is macerated, the placenta is white, soft, and greasy to the feel; if labor is at full term, and the child is alive, the pla-

¹ Read at the Twenty-second Annual Meeting of the American Gynecological Society, Washington, D. C., May 5, 1897.

² Fournier, "Syphilis and Marriage," p. 66.

centa is unusually large and pinkish, due to the thickened decidua, very often with attached clots showing a previous hemorrhage into the placenta, or the occurrence of thrombosis of the lacunæ; or there may be found nodes, lamellated in structure and undergoing degenerative changes in the central portion. Calcareous degeneration is also seen, but this is by no means diagnostic of syphilis.

As a result of this cell infiltration of the villi, and the proliferation of the decidual cells, there is obliteration of the blood-vessels and encroachment on the intervillous spaces, and the function of the organ is more or less destroyed, the villi themselves being destroyed by the formation of nodes. When endometritis placentaris is present, the hyperplasia of the decidual cells attaches the placenta to the endometrium, so that it may be retained firmly at points and lead to hemorrhage or septicemia. The placenta and endometrium in these cases is apt to be less bloody, and when washed the endometrium has a bacony feel, and the lochia is more watery and very much less abundant than ordinarily. No physical signs are present during pregnancy to diagnose placental syphilis.

Fetal Syphilis.—According to Ruge, eighty-three per cent. of premature and still-births have their cause in syphilis of one or both parents. We must also include the number of syphilitic children born alive who eventually die from inherited syphilis, to form a complete idea of the destructive effect of syphilis on the fetus. Syphilis is evidenced in the fetus by the early death of the latter in the uterus; by the peculiar old, wizened, and shrunken appearance of the child when born alive; by the presence of pemphigus and scaly eruptions, fissures at the mouth and anus, inflammations of the mucous and serous membranes, condylomata at the mucous orifices, and growths of the connective tissue in the arteries, constituting endarteritis. In the liver, spleen, pancreas, lungs, brain, and spinal cord circumscribed or diffuse gummatous deposits are found. These are most easily observed in the liver in the shape of minute grayish-red or grayish-white pin-head and larger-sized bodies, which under the microscope are found to be nests of well-packed embryonic cells surrounded by a dense mesh of connective tissue with radiations passing toward the normal hepatic cells in every direction. Those changes in the fetal structures are more disastrous than in the adult, because the subject is infected *ab ovo* with the special toxin of the malady.

More striking and peculiar are the changes described by Wegner, Parrot, and Hutchinson. Wegner describes a form of osteochondritis, at the epiphysodiaphyseal extremity of a long bone. In these

cases premature ossification goes on with increased proliferation and growth of individual cells; or, there may be actual arrest of the bone-making process by premature sclerosis of the intercellular hyalin matrix of the cartilage. Parrot describes an atrophy, in which rosy or yellow-tinted, jelly-like foci develop at the line of junction of epiphysis and diaphysis, and in which eventually in place of bone a loose reticulum of fibrocellular structure is formed, allowing easy dislocation. In another case described by Parrot, osteophytes of varying thickness, projecting at right angles to the osseous shaft, develop from bony trabeculæ and interlace at one or several points beneath the periosteum. Under the microscope there is recognized an exceedingly irregular arrangement of the Haversian canals and osteoblasts, with filling up of the canals with granulation cells so that the arterial supply is cut off; at other points the osteophytes produce porosities strikingly similar to rickets.

The child born of syphilitic parents may not present any evidences at birth of the disease, except the peculiar old-man appearance. Subsequently, snuffles develop, then restlessness and irritability, accompanied by a peculiar moaning cry, indisposition to nurse, marasmus, and death, sometimes very suddenly and seemingly without cause, it only being explicable by the changes found in the arterial system. Again, the child may be perfectly well until a cold, digestive disturbance, or vaccination, by perturbing the system, causes syphilitic manifestations to appear.

Syphilis in the pregnant woman exhibits itself in various ways, depending on the time and mode of infection. When syphilitic before pregnancy supervenes, the ordinary signs have been, or are, present; when infected at the fruitful coitus, from a primary lesion on the man, the chancre, according to most observers, appears earlier than in the unimpregnated (at about the second week), and its course is usually more severe. The secondary symptoms are usually light, so that some have thought that pregnancy has a benign influence on the disease. In the three cases I have seen the manifestations of the disease seemed quite as severe as in an ordinary case, and when the pregnancy was interrupted by the death of the fetus and its expulsion from the uterus, the symptoms seemed in no wise ameliorated. This form of infection is certainly the most fatal to the fetus. When the pregnant woman is infected by a man suffering from the secondary effects of syphilis, the duration of the disease, its severity, the amount, efficiency, and duration of the treatment are the important factors in determining the effect on the fetus. If infected before the later months of

pregnancy the disease usually kills the fetus, particularly when the disease in the father of the child is in an active stage and uncontrolled by treatment. Many authorities claim that infection in the last months of pregnancy does not affect the fetus disastrously, but to this an unanswerable argument can be made in the fact that, following Colles' law, such an infant can, and does, nurse its own mother without infecting her or showing an initial lesion on itself, while the mother will subsequently show the effect of the disease. When both parents are syphilitic, as was stated in the beginning of this article, the effect on the child is very fatal.

Time and treatment do away with the evidences of syphilis, but the amount of both time and treatment and the limit when the disease is cured, is difficult to state. I have had cases in which the time from the appearance of the initial lesion has been as long as six, and in two cases, even twelve years, yet the disease was the cause of death of the fetus. It is, however, a frequent experience to see cases in which sterility for some time will be followed by pregnancy, abortion resulting at the second or third month, subsequent pregnancies terminating at the fourth, sixth, or seventh month, and finally, after four or five pregnancies, result in the birth of a live child, with little, but still marked, evidences of syphilis. Eventually the disease, by time alone, seems to lose its force, and healthy children may be born. Later in life these children often present the enlarged glands, the red inflamed margins of the eyelids, and Hutchinson's teeth which are characteristic of inherited syphilis.

The diagnosis of syphilis in pregnancy, particularly when the father alone knows of the existence of the disease, is sometimes difficult. If the pregnant woman has been infected by a primary lesion, the secondary results will make the diagnosis certain, even if the initial sore was unobserved. When the husband denies having had the disease, however, a careful examination must be made of his person for involvement of the glands in the groin, and for the lesions of the mucous membranes. Twice I have thus shown that the husband and no other man was the guilty party. When the husband has syphilis and, believing he has been cured as there have been no active signs of the disease for some time, he impregnates his wife, the disease usually evinces itself about the middle of the third month by the appearance of mucous patches on the tonsils and pharynx of the wife. The physician who is called to a patient with sore throat, who at the same time is pregnant, will be able to determine the diagnosis from the presence of these patches, there being an absence of fever or evidence of diphtheria, and from

the enlargement of the lymphatic glands, the swelling not being confined to those of the neck. Careful inspection also shows condylomata at other mucous orifices.

Consulted by patients who have had several miscarriages, the diagnosis is made positive by leading the patient's memory to the appearance of the fetus when born, or by the absence of a history of accident or other cause for abortion, and by observing the enlarged suboccipital, epitrochlear glands, etc., which are the vestiges of the disease. If the husband can be interrogated, a history of his attack of syphilis may sometimes be obtained. Some authorities state that in the absence of any other causes for frequent miscarriage, as chronic endometritis, membranous dysmenorrhea, etc., the presumption should always be acted on that syphilis is the cause, and treatment instituted accordingly. The success in the use of mercury in small doses as a tonic in building up the system might lead us to conclude without sufficient basis that the patient or her husband was syphilitic if pregnancy and a live full-term child was the result, and thus an erroneous diagnosis be made.

The Treatment of the Syphilitic Pregnant Woman.

—The treatment of syphilis in the pregnant woman, when both husband and wife are cognizant of the disease, is robbed of half of its difficulties, and in the vast majority of cases, when instituted early, is successful. When, however, the patient has to be treated without feeling sick, unconscious herself of any necessity for treatment, and particularly if it is during a first pregnancy and the patient has near relatives who know of no reason for the care of a physician, and if the husband will not allow of an explanation, a problem is presented which demands all the carefulness and skill of a diplomat to solve. These considerations, in our solicitude for the welfare of our patient, often cause a physician to adopt a less effectual means of cure because it is easy and not apt to excite remark.

Mercury is the only drug that will control syphilis, either in the pregnant woman or in the non-pregnant. Many of the preparations of the drug are not easily handled, however, and some by their action on the bowels are liable to interfere with gestation. My preference is for treatment by inunction, which is disagreeable to some, and certainly is more apt to excite apprehension than when the mercury is administered by the mouth. I have found this method the most efficient, the most easily controlled, and least productive of such disagreeable results as salivation, diarrhea, colic, indigestion, etc. I order the mercurial ointment in bulk, and advise that a piece the size of a hazel-nut be rubbed into the skin of one upper arm morning and evening, the

process being repeated the next day on the inner side of the thighs, while on the third day the inner side of the chest is utilized, and on the fourth day the arms again. If thin undergarments, such as balbriggan, are worn, and the patient takes a warm bath each night before using the inunction I have seldom seen any who complained of the treatment.

The mouth should be rinsed and the throat gargled with a weak solution of chlorate of potash and borax, to avoid stomatitis, as in all cases in which mercury is administered. As soon as the gums show redness and softness, and the blue line appears, the amount of the drug should be reduced or stopped altogether for a time. It is surprising how very infrequent the necessity occurs for the latter. Local lesions are best dressed by dusting with calomel or aristol. The baths necessarily taken by a pregnant patient treated by inunction have seemed to me to be of the utmost service in keeping the skin and emunctories active. I have never seen one of these patients suffer from uremia. When it is necessary to use mercury by the mouth, the tablets of the protiodid in one-half-grain doses three times a day, have given the best results. Mercury with chalk, in fractional doses, and the biniodid in one-sixteenth-grain doses also are highly recommended.

Syphilis always produces a decrease of the red globules in the blood, an increase of the white, and a profound deterioration of the system, which, added to the condition of hydremia and anemia, with retention of waste matter due to the pregnant condition, reduces the patient's vitality extremely. These conditions should constantly be borne in mind, and the judicious use of good food, fresh air, exercise, the ferruginous tonics, arsenic, strychnin, and cod-liver oil should be advised; indeed, specific treatment, while the most powerful tonic, is frequently inefficient if these adjuvants to overcome anemia are omitted.

The effect of the mercurial administered according to modern methods is tonic and constructive in the highest degree, as has been shown by Keyes and Taylor, and by many other syphilographers. The improvement in the system by a course of mercury is constantly shown by an increase in the number of red blood globules and a healing of lesions. These facts should be borne in mind in the treatment of the pregnant syphilitic. The iodids in my hands have not been of service in the treatment of these cases, and the fear of the effect on the uterus has prevented their use.

After labor the mother still must be treated, and frequently the child as well. Fortunately the treatment of both can be carried out by giving the

mercurial to the mother, for it passes to the child in the milk. As the infant grows older, the mercurial ointment may be rubbed on its flannel band, as enough of the drug will be absorbed by the skin. The mother and child should be treated also in order to protect others who come in contact with them, and kissing and fondling of the babe by relatives should be prevented.

At the time of confinement great care should be exercised by the accoucheur and nurse to prevent infection. Syphilitic patients seem peculiarly liable to septicemia, so more than ordinary aseptic precautions should be taken. As frequently the mother is too weak to nurse her child properly, and as its depreciated condition demands the best of nutrition, a wet-nurse should not be employed on account of the danger of her becoming infected, but sterilized food should be regularly given, and this should frequently be aided by inunctions of cod-liver oil, which in my hands has often saved these poor infants.

When miscarriages have occurred from the presence of syphilis, and again, even when a child has been carried once to full term, we are not sure that subsequent pregnancies will terminate in the latter happy way, unless we treat the patient specifically not only for the disease but also for its effects.

As was stated in a former part of this paper, an endometritis is often present as a result of a miscarriage, and in many cases I have considered it the cause of subsequent abortions. The uterus is enlarged and subinvolved, there is a purulent and watery, sometimes fetid, leucorrheal discharge, and the uterine mucosa feels, when available to the touch, hard, bacony, and nodulated. I have found that if the uterus be thoroughly curetted and painted with iodized phenol, or lightly tamponed with iodoform gauze so as to allow of drainage, the uterus becomes lighter, the discharge clears up, and with the specific treatment continued, the patient is more quickly cured, the disease being rendered innocuous in future pregnancies. In one instance in my experience, in which eight abortions and premature births had taken place, at short intervals, thorough curetting and treatment made possible the delivery of a full-term living child at the next pregnancy.

All other manifestations of the disease should be treated according to the well-known principles, which need not be enumerated here, the vital point being that the treatment should be vigorous and persistent in both the wife and husband, mercurials, iodids, and tonics being administered until the disease is controlled. After a labor in which the child is dead, both husband and wife should be told of the danger of a fatal result to the fetus should pregnancy result without prolonged and thorough treatment,

and the risk of pregnancy should be avoided until a reasonable time has elapsed in treatment.

BIBLIOGRAPHY.

- Charpentier (Grandin): "Traité d'Accouchement."
 Lomer: *Zeitschr. f. Geburtsh.*, Bd. X.
 Ruge, Tarnier and Budin, d'Outerpont: "Ueber die Krankheiten Abnorm. der Placenta," *Deutsche Zeitschr. f. Geburtsh.*
 Fränkel: *Arch. f. Gyn.*, Bd. II., s. 373.
 Sir James Gurnson: *Edin. Monthly Jour. of Med. Sci.*, Feb., 1845. "Obstetrical Works," vol. ii.
 Fränkel: "Ueber Placental Syphilis," *Arch. f. Gyn.*, Bd. V., s. 6.
 Hirst: "American System of Obstetrics," vols. I. and II.
 Van Buren and Keyes: "Genito-Urinary Disease and Syphilis."
 Prince A. Morrow: "Genito-Urinary Disease, Syphilography, and Dermatology."
 Fournier: "Syphilis and Marriage."

**WHAT SYMPTOMS SHOULD WE CONSIDER
 MOST IMPORTANT IN DECIDING AS TO
 THE ADVISABILITY OF OPERATION
 IN MASTOID DISEASE?**

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THERE are two forms of mastoid disease to which I desire to refer in this paper—first, an inflammation of the mastoid cells secondary to an acute otitis media; and second, an inflammation of the mastoid cells occurring in connection with a chronic purulent otitis media.

Since the influenza made its appearance in this country, some seven years ago, there have been, according to my experience, many more cases of mastoid disease observed than ever before. It is only a few years ago that but twelve, or at most twenty, cases of mastoid disease were recorded in the annual report of the New York Eye and Ear Infirmary. In the report for 1896 there were 135 mastoid operations recorded. Formerly, it was the exception for the mastoid cells to be simultaneously involved in a case of acute otitis media. During the past few years this condition of affairs has been very frequent. A patient will have a sudden severe earache, which is followed in a few hours by a bulging of the drumhead and symptoms of mastoid inflammation. Of twenty cases that within a short period of time have come under my observation in private practice, thirteen were in children, whose ages varied from a few months to thirteen years. The age of the remaining seven patients ranged between seventeen and fifty-five. Of the latter, there were three males and four females. Of the children, eight were males and five females. In sixteen cases, the inflammation of the ear was due to cold, influenza, or tonsillitis; in one it followed bronchitis, one was due to whooping

cough, and one to measles. In one the inflammation was undoubtedly caused by the cutting of four molar teeth. In two cases, due to cold, the earache was undoubtedly aggravated by teething. Of these twenty patients, all developed acute otitis media. In seventeen there was acute inflammation of the mastoid cells, and in seven it was necessary to open the mastoid process. In ten, recovery took place without operation. Of the last named, the drumhead was punctured in six cases.

In one of these twenty cases, *viz.*, that of an infant, several months old, in whom alarming symptoms developed suddenly, suggesting a meningeal complication, puncture of the drumhead gave speedy and marked relief. In another, twenty-two months old, who had had a capillary bronchitis, there suddenly developed an acute otitis media on each side. The temperature rose to 105° F. I punctured both drumheads and the temperature fell to 102° F. In this case it was necessary to incise the drumheads several times. Each time that the perforation closed, the temperature would suddenly rise to 105° F. The child made an excellent recovery. In a child eight years of age, who had a sudden attack of earache, the temperature was 102° F. An examination of the ear showed a severe inflammation of the bony auditory canal with redness and bulging of the right membrana tympani. An ice-bag was applied after the artificial leech had been used, as there was extreme tenderness over the mastoid process. On the following day inflammation occurred in the left drumhead with involvement of the mastoid process. The same treatment was followed out here. There was a copious discharge from the ears, but on the third day it was necessary to make a free incision again in each drumhead; as the discharge was scanty. The temperature gradually declined and on the ninth day became normal. In a child of eleven, who had a sudden attack of *grippe* and tonsillitis, followed by earache on the left side and inflammation of the mastoid process, the temperature was 103° F. There was tenderness on pressure over the middle and lower thirds of the mastoid and bulging about Shrapnell's membrane. In spite of the treatment, which consisted in the application of leeches, paracentesis of the drumhead and the use of the ice-bag, the mastoid symptoms became more marked and the temperature rose to 106.2° F. It was necessary to open the mastoid cells and to remove granulations and softened bone. The temperature on the day after the operation varied from 104.2° to 105.2° F. At this time evidences of pneumonia were discovered. Two days later, the temperature began to decline gradually and perfect recovery followed. I had another case under observation very similar to

¹ Read at the Thirtieth Annual Meeting of the American Otolological Society, held at Washington, D. C., May 4, 1897.

the preceding, in which the first symptom was a severe earache. Paracentesis was performed. The temperature remained high and symptoms of pneumonia were marked. The child recovered. In cases of acute otitis media following influenza, and in which the temperature remains high after the membrana tympani has been incised or the mastoid cells opened, we should bear in mind the possibility of the existence of a latent pneumonia, as well as other complications.

In the case of acute otitis media occurring in connection with measles, the temperature suddenly arose to 104° F. There was inflammation and bulging of both drumheads, together with tenderness on pressure over the antrum and lower third of the mastoid process on each side. Puncture of each drumhead and the application of the Leiter coil, with frequent syringing of the auditory canals, was the treatment employed. After the paracentesis the temperature fell to 100° F. Of the adults referred to, one was a gentleman, fifty-five years of age, who had an attack of influenza, followed by an earache on the left side. When I first saw him there was extreme tenderness over the lower third of the mastoid, and a small perforation of the drumhead, with a thin, scanty discharge. I immediately enlarged the opening in the membrane and ordered small doses of calomel and the application of the ice-coil. The temperature varied from 99.5° to 100° F. On the fifth day after my first visit, the temperature became normal. The patient made an excellent recovery. A case where it was necessary to open the mastoid cells was that of a young woman, seventeen years of age, who had a severe attack of influenza and an earache.

There was a scanty discharge at first, but it gradually became more copious. The drumhead was perforated in the lower anterior quadrant. The ice-coil was applied on account of mastoid tenderness. The drumhead gradually healed and the patient seemed to be on the road to recovery, when suddenly she again had severe pain in the mastoid. In this case the temperature was slightly above normal, never rising during the course of her illness above 102° F. It was necessary to remove softened bone and granulations from the antrum down to the tip. The patient recovered.

I have never seen a case of acute inflammation of the mastoid cells without some elevation of temperature, and I look upon this symptom as having a very important bearing upon the diagnosis. The temperature may vary from 99.5 F. to 100° F., in one case, while in another it may be much higher. As a rule, in simple cases, the temperature is apt to be much lower in adults than in children. In children, the temperature frequently is 104° or 105°

F. A patient with a temperature slightly above normal may have extensive caries in the mastoid, and we may find at operation that there is an opening into the middle cranial fossa, or that the lateral sinus is exposed. This condition of affairs I have frequently observed, so that a high temperature does not necessarily indicate a very severe inflammation of the mastoid cells. If a patient is under observation who has had an acute inflammation of the middle ear for a week or ten days, and if in spite of treatment there remains tenderness on pressure over the mastoid process, with a slight elevation of temperature, I consider these symptoms, when taken together, as very characteristic of mastoid disease. Pressure should always be made on both mastoids, however, as occasionally such pressure causes pain in a healthy mastoid process.

It was formerly taught that edema and redness behind the ear were evidences of mastoid disease. Operation should not be deferred until these symptoms appear, as valuable time may be lost by so doing. The fact must not be overlooked that redness and edema over the mastoid, and tenderness on pressure, may occur in cases of furunculosis of the external meatus, so that these symptoms do not always indicate mastoid inflammation. Bulging of Shrapnell's membrane, with drooping of the posterior and upper cutaneous lining of the external meatus, are, to my mind, absolute symptoms of mastoid involvement, and I believe that in such cases it is always necessary to perforate the mastoid cells.

As to inflammation of the mastoid occurring in connection with chronic purulent otitis media, a patient recently came to my clinic who had had a discharge from the ear for ten months. He had pain and tenderness over the mastoid, especially the tip. A leech was applied. He returned in a few days and there was evidences of slight facial paralysis on the same side as the ear inflammation. He was admitted to the hospital, and, under ether, I found great destruction of bone, with the mastoid cells filled with pus and broken-down tissue. The lateral sinus was exposed, and there was a large carious opening in the tympanic roof. This was enlarged and considerable pus escaped from the middle fossa. The boy recovered. In cases of chronic purulent otitis media, I think there is no question but that operation should be at once resorted to when mastoid symptoms develop.

As to treatment of acute otitis media, the artificial leech should be applied at once. If there is any bulging of the membrana tympani, it should be freely incised, and in cases of otitis media, due to influenza, especially when there is much pain and fever, an early puncture should be made. When the mas-

toid cells are involved, the local abstraction of blood is most important, and this should be followed by the application of the Leiter coil. The latter is much superior to any ice-bag, and should always be used when possible. A free incision should then be made in the drumhead along its posterior border from just behind the stapes down to the lowest point of the membrana. I always use a large knife for this purpose; never a paracentesis needle. I generally leave the ice-coil in place for forty-eight hours at a time and then remove it, as the cold generally relieves the pain but sometimes masks the other symptoms. The cold can be reapplied, but should not be constantly used after the first two days. I give calomel in small doses at the commencement of the disease until slight catharsis is produced. Tincture of aconite is also a valuable remedy in the inflammatory stage. Frequent douching of the ear with a boracic acid, or occasionally a mild bichlorid solution, is necessary as long as the secretion is profuse and the acute symptoms present. I almost always administer chloroform when incising the drumhead. Especially should this be done in the case of children. This anesthetic should be used most cautiously, however, and only in such quantity that the patient will feel no pain when the incision is made. I sometimes employ Politzer inflation to remove the secretion and occasionally apply suction by means of Siegle's otoscope for the same purpose, but great caution should be exercised in the application of either method. If the mastoid symptoms persist in spite of treatment, one should not hesitate to open the mastoid cells at once.

CLINICAL MEMORANDA.

EXTRA-UTERINE PREGNANCY OCCURRING TWICE IN THE SAME FALLOPIAN TUBE.

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In view of our preconceived ideas of the etiology, evolution and terminations of ectopic gestation, the occurrence of this condition twice in the same tube would scarcely seem possible. If we admit its occurrence in the case I report, it is certainly unique, as I am not aware of any similar case on record.

In a paper read by me before the State Medical Association of Missouri, at Sedalia, on the 19th of May last, on the subject of extra-uterine pregnancy, I reported, among others, the case of Mrs. T. D., then twenty-six years of age, the mother of three children, who, after passing her regular monthly period for four or five days, commenced to flow, which she regarded simply as delayed menstruation. This flow continued for four or five days,

when on November 15, 1895, it suddenly stopped. She supposed she had taken cold, especially as she had some pain. On November 18th she was taken with severe pain in the left side of the pelvis, which "doubled her up," as she expressed it, and which was accompanied with faintness and diarrhea.

I made a diagnosis of tubal pregnancy, with rupture of the sac, and advised celiotomy, which she emphatically declined. In the meantime there was a return of the bloody flow. Her temperature rose to 103° F., and her pulse to 130 per minute, with great abdominal tenderness. The flow continued for about three weeks. There was a gradual subsidence of the more acute symptoms, but a distinct tumor or swelling, with great tenderness, remained for months. About December 13, 1896, she consulted me and stated that she should have been unwell about the 10th but had had only a slight show, and as she had been perfectly regular up to that time, she was apprehensive that she might be pregnant, a condition to which she was very averse. I suggested it might be the effect of cold only, and that the next period might come around all right, and advised her in any event to leave the matter alone. On January 21, 1897, I was called to see her, and found her suffering great pain. She gave me the following history:

On the 14th of the month a profuse bloody flow had made its appearance, coming on with a gush like that from a hydrant. On the first or second day of the flow, a membranous, fleshy something came away, but she did not preserve it. The bloody discharge had continued quite free, without marked pain, up to the 21st, when in the afternoon she was seized with violent pain in the left pelvic region, which was accompanied by faintness and vomiting. When I saw her the pain was still very severe and the tenderness in the suprapubic region great. Upon digital examination, a distinct tumor in the left pelvic region could be felt. It was clearly not connected with the uterus, there being a distinct interval between. It was excessively painful to the touch, and seemed about as large as a small fist and somewhat elongated. I thought I could detect indistinct fluctuation. She had no fever, but a quickened and rather depressed pulse.

I was somewhat puzzled to account for the condition. Under the circumstances I should unhesitatingly have made a diagnosis of tubal pregnancy with rupture of the sac. With a previous history and a group of symptoms which clearly indicated an extra-uterine pregnancy in the same tube, with a rupture of the sac, I hesitated. I explained to her that some serious accident had happened in the pelvis and that it indicated extra-uterine pregnancy, and that a celiotomy ought to be performed at once. To this she again objected. I gave her a hypodermic injection of one-third of a grain of morphin to relieve her great suffering, and left her, with instructions to send for me at once if any urgent symptoms arose.

The next morning, January 22d, in response to an early telephone message, I saw her again and found that she had rested fairly well during the night, but that some pain had again set in in the morning. She was quite pale, with a pulse 120 beats to the minute and depressed,

but there was no rise of temperature. Digital examination produced the same excruciating pain and revealed the same swelling at the left of uterus. I explained to her that the rupture of the sac of an extra-uterine pregnancy had occurred, that the condition was an exceedingly critical one, that if she survived the immediate dangers she must expect to go through the same ordeal of suffering and ill-health as before, and advised her to submit to an operation. After much hesitation she consented, but not until late in the afternoon.

Aided by my assistants, Drs. Geitz, Schlueter, and Rohlfing, I proceeded to open the abdomen, making an incision of about two inches through the peritoneum. Passing in two fingers I found blood welling up from the pelvis, and readily recognized extensive adhesions. The uterus was retroverted and held by bands; the left Fallopian tube and ovary were somewhat prolapsed and firmly bound down. A rounded tumor could be felt about two inches to the left of the uterus in the track of the tube, which, upon attempting to raise it, became loose and dropped into the pelvis. It proved to be a firm mass made up mostly of clotted blood larger than a walnut. With my fingers I endeavored to detach the adhesions from the tube and ovary, but only succeeded in part. In fact, I was compelled to make a pedicle of a mass of adhesions that bound the ovary down too firmly to be detached. The tube and ovary were then removed, the pelvis sponged out with sterilized gauze and the abdomen stitched up with silkworm gut, without flushing or drainage. A large rent was found midway in the Fallopian tube, from which the clot had escaped during the early manipulation. The fimbriated extremity was hermetically closed, the tube appearing as though two sacs existed, the one from which the above-mentioned clot had escaped, and a larger one at the outer end, with something of a constriction between. No fetus was found, but a careful search was not made to find it in the fluid of the belly.

That a similar accident had occurred more than a twelvemonth before, involving the same Fallopian tube, the history of the case, the identical group of symptoms in each case, and the pathologic conditions found at operation clearly demonstrated. If it be admitted that the accident in November, 1895, was a tubal pregnancy with rupture of the sac, how could a second pregnancy occur in the same tube? That it did occur, I think is certain. It might be contended that the failure to find the fetus at the time of operation leaves a doubt as to the diagnosis of ruptured tubal pregnancy. Upon this point, Mr. Tait says: "I have never seen an intraperitoneal hematocoele that was not due to ruptured tubal pregnancy"; and when we find a tube dilated into a sac until the distension has caused its rupture, followed by an extravasation of blood in quantity, what other conceivable explanation can be given when we know that in many similar cases the fetus has been found? The criticism might have more weight if applied to the first accident, since actual rupture of the tube was not verified and it *might* have been an extraperitoneal hematocoele (intraligamentous), though such a condition is scarcely possible in

view of the evidence of peritonitis which was found to have followed.

In what condition was the tube left after its rupture, after the peritonitis set up in connection with it, and after the absorption of the blood poured out at the time of the accident and the cicatrization and repair of the rent in its walls? It must be conceded that in accordance with the scheme of tubal pregnancy as at present understood, the tube should be patulous from the uterus to the *morsus diaboli* to permit of the passage of the ovum, on the one hand, and the spermatozoa on the other.

According to Bland Sutton, while the tube is expanding from the enlargement of the ovum within it, and the mucous membrane is stretched and its glandular folds effaced, "curious alterations are taking place at the abdominal ostium, which in most cases gradually bring about its occlusion, an event usually completed by the eighth week. During the first four weeks the congestion of the parts causes turgescence of the fimbriae as well as of the muscular and serous tissues adjacent to them. When the parts are thus swollen the margin of peritoneum adjacent to the ostium is very conspicuous, and forms an irregular ring over the fimbriae. In another fourteen days this ring projects beyond the fimbriae, and lastly contracts and hermetically closes the ostium."

Admitting the correctness of my diagnosis in this case in the first instance, we must suppose that one of two things occurred, first, either the rupture in the first case occurred before the closure of the abdominal ostium, leaving the lumen of the tube after the repair of the rent still patulous, or, second, the fimbriated extremity having been closed, an ovum must have passed down the right tube, become impregnated in the uterus, and been forced up by muscular action into the left tube in the manner suggested by Tyler Smith and Kussmaul (referred to by Playfair).

The following is the report of the microscopic examination of the clot by Dr. Carl Fisch of this city: "The clot was carefully examined in every direction, but it was not possible to demonstrate the presence of an ovum or of its remnants. There were, however, several places where chorionic villi were present in great numbers, some torn off and single, while others formed small groups connected by parts of the membrane. A number of these villi showed evident signs of maceration and disintegration; others were quite intact and normal in appearance. In the latter, vascular structures could be plainly made out, showing that the embryo must have been older than two weeks."

NOTE.—Since this paper was written, my attention has been called to a most interesting paper by Dr. H. C. Coe of New York in *The American Journal of Obstetrics and Diseases of Women and Children* for June, 1893. In this article he reports one case of his own of undoubted successive tubal pregnancy in which an old unruptured tubal sac containing fetal bones was situated near the uterus and another of recent development near the fimbriated extremity which was patulous. The more recent sac had ruptured and contained a living fetus of four months. He also cites Hayden's case, also

a double tubal pregnancy in which an old sac containing fetal bones was found lying apparently just outside the free extremity, while a second sac developed near the fimbriated extremity had ruptured.

TWO CASES OF FIBROID TUMOR OF THE UTERUS.¹

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THE following two cases of fibroid tumor of the uterus are of more than usual interest, especially the first one, on account of the enormous size and peculiar multinodular conformations of the growth.

CASE I.—D. W., aged fifty-four years, married, nulliparous, consulted me about a large abdominal tumor, which upon examination proved to be a uterine fibroid. The tumor reached almost to the costal cartilages, and from external appearances the abdomen resembled in size that of a woman at full term. Upon external palpation and manipulation the growth was found to be slightly movable, the motion being limited owing to its enormous size. Contrary to the rule, menorrhagia was not of any consequence as a symptom in this case. There were, however, some symptoms referable to the bladder, such as inability to retain urine for any length of time, etc. By vaginal examination the cervix and a portion of the body of the uterus appeared to be normal, but surrounding the entire fundus of the organ could be felt a fibroid mass.

The woman was prepared for operation by the administration of tonics, salines, heart stimulants, etc., the preparation extending over a period of a week. The incision reached almost to the ensiform cartilage. The tumor appeared to be in halves, the upper half being the larger. The surface was very nodular. It was easily delivered, there being some slight omental adhesions, which were quickly tied off and separated. The pelvis was elevated at the time the delivery was accomplished. From experience gained in another case I have found it best to keep the woman in a horizontal position until the tumor is delivered, since the Trendelenburg posture may become a source of danger where large tumors exist, owing to their tendency to fall toward the diaphragm. When large growths are suddenly delivered from the abdominal cavity they very often produce profound shock, owing to the rapid dilatation of the omental vessels which before were compressed by the tumor, but by sudden relaxation drain, so to speak, the larger part of the volume of blood into the vessels in the abdominal cavity, thereby causing syncope, which might produce death. An assistant had been assigned the duty of elevating the table to an angle of 45° as soon as the tumor had been brought out through the abdominal wound. A rubber ligature was now temporarily thrown around the growth, including both tubes and ovaries, and the mass was cut away. The pedicle was surrounded by a *serre-neude* and the stump treated

extraperitoneally. The woman was taken from the operating-table with a pulse of 70, and throughout her convalescence the pulse never reached 100, although the temperature on several occasions registered between 100° and 101.5° F. There was no nausea, and the post-operative course was as uneventful as could be desired. The pedicle came away on the seventeenth day and the remaining cavity healed by granulation. The total weight of the tumor was twelve pounds, although it was judged by some as weighing at least twenty-five pounds. Its dimensions were as follows: Longest measurement, sixteen inches; widest measurement, ten inches; and thickest, seven inches.

CASE II.—Francis R., aged thirty-seven, married, nulliparous, was examined by me three years ago, and at that time a small uterine fibroid was discovered. She was again examined recently, when it was found that the tumor had enlarged to the size of a cocoanut, while at the same time a mass could be detected on each side of the tumor in the broad ligaments. Owing to the rapid growth of the tumor, and some vesical and rectal disturbance of which she complained, an operation was advised and agreed to. The woman was in very good health and required but little preparatory treatment.

The abdomen was opened, and it was found that, in addition to the fibroid, there were cysts of each ovary. On the right side the cyst was about the size of the adult fist, on the left about that of a goose egg. There were no adhesions, but the entire growth was deep in the pelvis, and was delivered with considerable difficulty. I had intended to do a complete hysterectomy, but owing to the time consumed in delivering the tumor and cysts, it was thought best to use the *serre-neude*, which, however, did not control the hemorrhage, and in tightening the wire the instrument slipped clear of the pedicle, so that finally total extirpation became necessary. Complete hysterectomy was performed, and the field of operation closed in by flaps dissected from the anterior and posterior surface of the tumor. The entire pelvis was closed, save the two stumps of the ovarian arteries on each side. These were left exposed and protruding into the general peritoneal cavity.

The operation consumed an hour and three-quarters, and, notwithstanding the time and the loss of blood, the patient left the table with a pulse of 108, and, considering the attending circumstances, was of very fair volume. The temperature did not exceed 100.5° F., and the pulse did not reach 100 after reaction was established. The stitches were removed on the eighth day, primary union having taken place throughout. The post-operative course was absolutely devoid of complication. The tumor in this case weighed about five pounds.

MEDICAL PROGRESS.

Appendicitis at One Year.—TAYLOR reports in the *Boston Medical and Surgical Journal* of May 27, 1897, a case of appendicitis occurring in a child one year old. The attack began with vomiting and pain, but the diagnosis was not made at first, and operation was not performed until

¹ Read before the Louisville Clinical Society.

the fourth day. An incision was made in the median line on the supposition that there was an intestinal obstruction. The abdomen contained a large amount of thin pus, and through a second incision the appendix was removed and the abdomen flushed with boiled water. Death occurred in eight hours.

Cases of Peritonitis in Children Caused by the Pneumococcus.—In *La Presse Medicale* of February 27, 1897, is an article on the above subject by BRUN. It is of assistance in helping to clear up the complicated and still obscure subject of peritonitis. Brun describes three cases occurring in children, which, with two previously described by himself, and others described by Sevestre, Galliard, Moizard, and Kirrmission (fourteen in all), make up a clinical and anatomic picture sufficiently characteristic to render a diagnosis fairly easy. Of these fourteen cases in which the diagnosis has been confirmed by bacteriologic examination, eleven occurred in girls. In all of the cases the peritonitis was encysted and situated below the umbilicus. It began, as all cases of acute peritonitis begin, by severe abdominal pain, fever, vomiting, and with diarrhea. This storm soon passed over, and as the fever assumed the type seen in suppuration, there was observed above the pubis and in the iliac fossæ tumefaction with dullness, sometimes with fluctuation. This localization is almost pathognomonic, especially when accompanied, as it was in at least nine of the fourteen cases by a smoothing out (*deplissement*) or by fistulization of the umbilicus. In a case recently seen, by not heeding this smoothing out of the umbilicus, Brun mistook a case of pneumococcic peritonitis for appendicitis.

The prognosis after operation is good. Of these fourteen cases, eleven patients recovered, ten after laparotomy, and one without operation with discharge of pus through the umbilicus and vagina. In several cases the operation was no more than the opening of an abscess.

With reference to the etiology of this disease little is known. The diplococcus lanceolatus is often found in the uteri of young children, and the fact that so many of these cases have occurred in girls excites a suspicion that the cocci have found their way through the tubes or walls of the uterus into the peritoneal cavity, but as yet this is nothing more than supposition.

THERAPEUTIC NOTES.

For Hemorrhagic Metritis.—

R Fl. extract of ergot ℥ i
 Fl. extract of hamamelis } aa ℥ ss.
 Tr. cinnamon

M. Sig. A teaspoonful every two hours.—Chase.

Mixture for the Treatment of Streptococcic Sore Throat in Children.—

R Tincture of strophanthus } aa m. x
 Anisated spirit of ammonia }
 Distilled water ℥ iiss.

M. Sig. A teaspoonful every two or three hours (for children from ten to twelve years of age).—Professor von Widenhofer.

Vertigo in Arteriosclerosis.—GOARCON (*Rev. de Therapeut.*, April 15, 1897) recommends the following prescription for the vertigo which so often accompanies sclerotic arteries:

R Iodid of soda 3 ii
 Distilled water ℥ viii.

The dose is one or two teaspoonfuls three times a day. The unpleasant taste may be masked by syrup of bitter-orange peel, or by milk. Hygienic treatment should accompany the medical treatment. The patient should avoid mental or physical over-exertion, should live as much as possible out of doors, should eschew a too-exclusively meat diet, piquant sauces, fish, pastry, etc. Alcoholic liquors and tobacco should be absolutely forbidden.

Epithelioma of the Face Cured by Injections of Methyl Blue.

—DUBARRY (*Rev. de Therapeut.*, April 15, 1897) reports a case of epithelioma of the chin cured by interstitial injections of a ten-per-cent. aqueous solution of methyl blue. At first an injection of twenty-five minims was made every two days. Later the amount was decreased, and only one or two injections were made during a week. The entire period of treatment was six months. The tumor atrophied, and at the end of the period of treatment only a fibrous cicatrix remained. Eight months later there had been no recurrence.

Mineral Waters in the Treatment of Pulmonary Emphysema.

—CAZAUX (*Rev. de Therapeut.*, May 1, 1897) speaks of the advantage to be obtained in certain cases of emphysema by the use of mineral water. Naturally, relief would be expected only in those cases in which the dilations include a few acini with the preservation of a considerable portion of the elastic fiber. In emphysema of this character, especially if it is of a bronchitic origin, relief, and in many cases absolute cure, may be confidently expected. Such cure is produced in two ways: (1) by a modification of the bronchial mucous membrane, putting it in a condition to resist external changes of temperature; (2) by restoring the conductivity of the elastic fibers upon which normal expiration depends. In arthritic subjects mixed bicarbonate waters are indicated, while patients of arthritic temperaments suffering from catarrhal asthma should take waters containing sulphur or soda, either alone or combined with metallic sulphids.

Novel Method of Irrigation in Empyema.

—ZEMAN (*Rev. de Therapeut.*, May 1, 1897) has treated a number of cases of empyema with fistula by warm baths. If the fistulous opening is below the level of the fluid, it is evident that if the patient inspires and expires freely there will be a current of water into and out of the pleural cavity much stronger than can be obtained by simple irrigation. Clumps of coagulated blood and fibrinated masses are by this means washed out which could not have been obtained by simple lavage. The baths were given in boiled water cooled to the temperature of the body, and lasted ten or fifteen minutes. The general condition of the patients was much improved, and no accident was observed to follow this treatment.

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A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

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No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

Subscription Price, including postage in U. S. and Canada.

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LEA BROTHERS & CO.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,
AND NOS. 706, 708 & 710 SANSON ST., PHILADELPHIA.

SATURDAY, JUNE 19, 1897.

THE NEW YORK UNIVERSITY BELLEVUE HOSPITAL MEDICAL SCHOOL.

THE announcement made in last week's MEDICAL NEWS that the consolidation recently entered into by the University Medical School and the Bellevue Medical School for the purpose of organizing a medical department of the New York University had been annulled, is authoritatively confirmed.

The announcement of the consolidation was welcomed by all who are interested in the progress of medical education. The possibilities that presented themselves in the organization outlined by its promulgators tempted the imagination to grand flights in anticipation of what the future held in store, in the realization of a magnificent medical institution that would surpass anything yet contemplated. All these dreams have been dissipated, and affairs seem to have been restored to the *statu quo* previous to the attempted consolidation. The responsibility for the final steps that led to the separation is not difficult to place, but the original basis of the misunderstanding is doubtless to be found in the failure on the part of both parties to thoroughly comprehend the difficulties inherent in the consolidation of two old-time friendly but vigorous rivals. The proceedings

had not reached a stage of advancement that would prevent Bellevue withdrawing with honor from the contemplated agreement; and this is what has occurred, the step having been taken at the formal solicitation of the representatives of the University Medical School.

With this brief interregnum in her existence, Bellevue is, therefore, again free to take up her career at the point at which the interruption came and go forward with the enlarged plans contemplated after the disaster by fire which befell her building in March last. The *entente cordiale* existing between the two institutions seems to have been strengthened rather than disturbed by the intimate contact necessitated by the consideration of the serious questions involved.

TWO CONGRESSES.

ONE month ago there were in session, under the shadow of the National Capitol, two bodies with singularly similar titles. Both were "Congresses," one the Congress of Physicians, the other the Congress of statesmen or politicians, both popular bodies, both concerned with the advancement of the good of the public in general—and of themselves in particular, incidentally. In both the members were supposed to be picked men, chosen on account of their skill and experience, in matters pertaining to their special spheres.

But here the resemblance abruptly terminates, and it is not to the discredit of the medical body that it does so. To the casual observer who watched them both at work, the contrast was most striking. One met three times a day, and every session was crowded with productive work; the other met twice a week to devise ingenious and entertaining methods of killing time and solving the great classic problem of "how not to do it." In the one the proceedings were dignified and impressive; the speeches, from the broad and thoughtful address of the President to the superb discussion upon the metabolism of the ductless glands, were of marked ability and vigor, every statement that of an expert, and the whole atmosphere that of courteous, but keenly critical, attention and interest. In the other was a Babel of confusion and boredom, of hand-clapping, paper-rustlings, audible expectorations, hands in pockets, feet on desks, eyes on ceiling, while every speech displayed an ignorance of the simplest facts and most primary principles of fi-

nance, of economics, of taxation, and of international law. The proceedings of the one were eagerly perused and the decisions respected and recognized as high authority by the entire profession which it represented; every movement of the other was regarded with suspicion bordering upon contempt, and a sigh of relief will be breathed by the vast mass of its constituents when it finally adjourns.

The differences between the two bodies are real and striking, and we have a right to inquire the reasons for them.

In the Congress of Physicians and Surgeons we have a body of some six hundred men, selected from every part of the Union, including in its ranks a considerable portion of the great leaders of professional thought, and representing a constituency of about 75,000 medical men, and yet not one of them is a member of the National Congress, even by chance. More than this, scarcely a single one of the constituency whom they represent is to be found in the political body, and we doubt very much whether the majority of those gathered together in Washington have a particle of influence, and in many cases even an acquaintance, with those who are supposed to represent them in the sister body.

The late Congress of the American Association for the Advancement of Science, and the Association of Charities and Corrections as well, disposed of its executive and personal business in a couple of half-hour executive sessions, and reserved eight-tenths of its time for the genuine purpose for which it assembled, while in either house of Congress days and weeks are wasted in sparrings for personal advantage, private bills, special pensions, and schemes of personal plunder generally. This is due largely to the caliber and character of the men of which the different bodies are composed.

In our own particular realm, we have just had a most unpleasant experience with the medical incompetency of the National Congress, in its unwillingness to consider and utter inability to appreciate the importance of the appointment of a National Department of Public Health. Nor is it simply its refusal to agree with the almost unanimous wish of the profession in regard to this matter that is most striking, for that might be based upon good and sufficient reasons of economy or policy, but it is its hopeless ignorance of, and barbarous indifference to, the really vital prin-

ciples involved. There has never been even a shadow of an attempt to discuss the question upon its merits. The impression seems simply to prevail that the scheme has "nothing in it," and hence it does not interest Congress.

As to the scientific incompetency of the National Legislature, we have a still more striking instance, in the question of the bigoted, reactionary laws upon the subject of animal experimentation which is now pending and against which there seems not a single member with either the knowledge or the courage to raise his voice.

The great realm of sanitation, of preventive medicine, is opening up more and more widely every day, and "our duty to our patients," in this, the nineteenth century, absolutely demands that we should go into the halls of the legislature, into the municipal council-room, into the State and National cabinets, just as much as into the hospital, and into the sick room. Not from any petty desire on the part of the profession to be "represented" or get its share of "recognition," but for the best interests of the whole community, and of those who are committed to our care. The only things which keep us from it are: first, that degrading old tradition in the community that a doctor has practically no political rights. The other obstacle is our own indolence and indifference, or worse, a selfish absorption in our own interests and cowardly fear of making enemies or losing reputation. But our end is not to be attained by a mere willingness to accept a nomination to Congress, or by urging ourselves for cabinet positions, but by hard, prosaic, unremunerative, often thankless work by each one of us in his own precinct, his own ward, his own county. An intelligent and disinterested element in any community is bound to win if it will only set itself to work. And if we, in combination with the truly patriotic and thoughtful men of other fields and professions, could succeed in returning to Washington a body as able, as upright, as dignified, and as truly representative as the body which has recently closed its sessions in the halls of the Columbian University, we should have done more for the general progress of the race than by any other one movement in which we could have taken part. And, from a purely professional standpoint alone, the gain in comfort, health, and longevity to our patients would be greater than from even the

discoveries of a Koch, a Metschnikoff, or a Lister, and just as genuinely legitimate an aim of true medical ambition.

OBITUARY.

DR. WILLIAM T. LUSK OF NEW YORK.

WE regret to announce the sudden death from apoplexy of Dr. William T. Lusk at his home in New York on Saturday, June 12th. The news came with painful surprise to all his friends. He had been in his usual health up to the time of the attack and was engaged in packing his satchel preparatory to spending Sunday with his family in the country when the summons came.

Dr. William Thompson Lusk was born in Norwich, Conn., May 23, 1838. He entered Yale College in 1859, but during his sophomore year he left to enlist in the army. Entering a New York regiment as a private, he displayed so much force of character that in three years he rose to be assistant-adjutant general. He then retired from the army, came to New York, entered upon the study of medicine, and was graduated from Bellevue Hospital Medical College in 1864. He immediately went abroad and spent four years in study at Edinburgh, Paris, Vienna, Prague, Heidelberg, and Berlin. He was professor of physiology in the Long Island Hospital Medical College from 1868 to 1871, and lecturer on the same subject at Harvard Medical School in 1870-71. During these few years he gained the reputation of being a brilliant physiologist and a most interesting lecturer. In 1871 he was elected to the Professorship of Obstetrics and Gynecology at Bellevue Hospital Medical College, which position he retained to the time of his death.

In entering upon this new field of labor, Dr. Lusk threw all the energy of his enthusiastic nature into the study of obstetrics as his chosen life work. His reputation as a teacher and a master in this branch of medicine became world wide, and his text-book on the "Science and Art of Midwifery" was hailed as the best treatise on the subject that had ever been published. It has been translated into the French, Italian, and Spanish languages, and has recently been adopted as a text-book in the Medical School of London. The interesting style of the book, the clear exposition of the subject, and the rational and logical treatment therein set forth will signalize it as a classic for many generations.

Dr. Lusk was a pronounced conservative, indeed he was rather timid in his proving of new remedies and surgical procedures. In this respect he exerted a wholesome influence upon the profession, especially at times when waves of surgical epidemics threatened to obliterate all treatment save that by surgical means.

To those who knew him well, Dr. Lusk was a man of warm impulses, of strong attachments, of a sweet spirit, and a lovable nature. To his patients he was not only the man of science, but the warm and sympathetic friend, whose coming was always welcome, and whose words of sympathy accomplished their object for they were always

genuine. His life was as open as a book. He always said what he felt and felt what he said. His words were devoid of diplomacy, and in his conduct finesse had no place.

Dr. Lusk leaves three daughters and two sons. The eldest son, Graham Lusk, is Professor of Physiology in Yale University. The younger son, Dr. W. C. Lusk, was associated with his father in his practice. He is Assistant Demonstrator of Anatomy in Bellevue Hospital Medical College, and Visiting Physician to the Workhouse and Almshouse on Blackwell's Island.

DR. J. LEWIS SMITH OF NEW YORK.

DR. J. LEWIS SMITH died suddenly of apoplexy in the seventieth year of his age at his home in New York, June 9th. He was born in Onondaga County, New York, October 15th, 1827, his father being the Hon. Lewis Smith, a direct descendant of John Smith, one of the founders of the New Haven Colony. His early education was obtained in the public schools, which at that time were of an inferior grade. He prepared for college at the Cortland Academy of Homer, New York, one of the foremost preparatory schools of the country, and entered an advanced class of Yale College, graduating in the same class with President Timothy Dwight. He began the study of medicine with Dr. Caleb Green of Homer, N. Y., Professor of Materia Medica in the Geneva Medical College. He afterward became a student of the elder Austin Flint and Frank H. Hamilton of Buffalo, and attended a course of lectures in the Buffalo Medical College. In 1851 he came to New York, and was graduated from the College of Physicians and Surgeons in 1853. He located in practice in the same year, and was appointed Curator to the Nursery and Child's Hospital in Lexington Avenue, where he made his first studies in the pathology of the diseases of children. In 1854 he determined to make the diseases of children his special field of investigation and practice.

His first publication was entitled "A Review of Epidemic Smallpox as it Prevailed in New York City at Different Periods During the Last Fifty Years," *New York Journal of Medicine*, July, 1854. He was also the author of the following contributions: "Report of a Case of Hydrophobia, with Statistical Observations," *New York Journal of Medicine*, September, 1855, and continued in the same journal for January, March, and May, 1856; "Remittent Fever in Children," *New York Journal of Medicine*, January, 1857; "On Infantile Pneumonia," *New York Journal of Medicine*, March, 1857; "Post-Mortem Appearances in Eleven Cases of Cholera Infantum," *New York Journal of Medicine*, July, 1857. From this time until his death he contributed upward of one hundred papers to the various medical periodicals on diseases of children. He also made large contributions to the following works: Ziemssen's "Cyclopedia of Practice of Medicine," Ashhurst's "International Encyclopedia of Surgery," Starr's "Diseases of Children," Keating's "Cyclopedia of Children's Dis-

eases," Sajous' "Annual," Pepper's "System of Practice of Medicine," "Reference Hand-Book," etc.

He held the following appointments: Curator to the Nursery and Child's Hospital, Physician to the Northwestern Dispensary, Visiting Physician to the New York Infant Asylum, Visiting Physician to the Charity Hospital, Visiting Physician to the Infant Asylum on Randall's Island, Visiting Physician to the New York Foundling Asylum, Consulting Physician to the Nursery and Child's Hospital, Second President of the American Pediatric Society, Professor of Diseases of Children in Bellevue Hospital Medical College.

The first edition of his work on "Diseases of Children" appeared in 1869, and since that date eight editions have been published at intervals varying from two to four years.

RESOLUTIONS ON THE DEATH OF DR. J. LEWIS SMITH.

June 11, 1897.

WHEREAS, The Medical Board of the New York Foundling Hospital has lost by death its oldest member, Dr. J. Lewis Smith, who for twenty-five years was Visiting Physician to the Institution, be it

Resolved, That it record this tribute to his memory:

His fame and faithfulness were ever devoted to the interests of this Institution.

Resolved, That this Board attend the funeral in a body; that a copy of these resolutions be spread upon the minutes and forwarded to the current medical periodicals, copies of the same being sent to the family of the deceased.

(Signed) JNO. J. REID, M.D., President.

W. P. NORTHRUP, M.D., Secretary.

ECHOES AND NEWS.

Enclosed Street Cars.—The New York Board of Health has passed an order requiring every street car line to run at least one enclosed car in every four.

Color of the Eye Indicative of Character.—One of the most curious results of the investigations made by doctors in the Russian jails is the statement that each group of criminals has its own peculiar color of the eye.

Leprosy in the Sandwich Islands.—Private advices from Honolulu report that leprosy is spreading with alarming rapidity in the islands. Formerly it was confined almost entirely to the natives, but now many whites are falling victims to the disease.

Vaccination and Tuberculosis.—The official *Reichsanzeiger* of Berlin published June 11th the decision of the Royal Scientific Medical Commission appointed to investigate the question whether vaccination against smallpox produces a disposition to tubercular disease. The commission finds there is no proof of such a disposition upon the part of vaccination against smallpox.

Meat Inspection in Rome, N. Y.—The Board of Health has adopted a rule requiring all persons selling meat to

butchers in that city to have it inspected by the Meat and Milk Inspector, and marked with a white tag when first-class and with a red tag when second-class. A fine of not less than \$10 is to be imposed for a failure to do this, and a similar fine imposed on butchers who expose meat for sale not properly marked. The rule takes effect at once, and the public is cautioned to see that the meat it buys is tagged.

Experts in Leprosy.—At the international leprosy conference to be held at Berlin on October 11th, Dr. Hutchinson of London will lecture upon alimentation and leprosy. Professor Virchow will discuss the pathologic anatomy of leprosy. Dr. Neisser of Breslau will deal with the origin of the disease, and Dr. Besnier of Paris will treat of its etiology. Professor Koch will discuss the question as to whether the disease is infectious. Drs. Kitasato of Tokio, Mauritz of Hawaii, Dering of Constantinople, and other eminent experts will attend.

New York Medical League.—A certificate of incorporation of the New York Medical League was filed with the Secretary of State at Albany, June 10. It proposes to unite fraternally physicians in good standing for mutual protection, and to advance the best interests of the medical profession. The trustees are Drs. Gustave Scheler, Douglas H. Stewart, E. Eliot Harris, John C. Schminck, Joseph E. Messenger, Frederick R. Sturgis, J. Smith Peterson, G. T. Harrison, Geo. D. McGauran, A. W. Warren, and Wm. J. Lamer of New York City.

Sending the Leper Back.—Mrs. Sansoni, the leper, who has caused so much trouble for Allegheny and Baltimore health officials, will be sent back to Allegheny in spite of that city's protest. It is said that the Baltimore officials are preparing a special car for her transportation. It will be a steel freight car, fitted up as comfortably as possible, and it is to be sealed until it reaches its destination. It is to be hoped that the international leprosy conference will settle the question of the communicability of leprosy. For a "non-infectious disease" it has already caused enough terror in the world.

Opening Day at Robin's Nest.—One of the most deserving of New York's many charities had its annual opening on the 12th inst. In addition to the many friends and patrons from the surrounding country—Tarrytown, Irvington, and Dobbs Ferry—several representative men from New York were present to lend encouragement, give statistics, and wish the young ladies, who so nobly support this charity, Godspeed. Thousands of little ones in New York are benefited annually by the work of the Robin's Nest. Children from St. John's Guild Hospital and Hospital for Ruptured and Crippled are cared for during the entire summer gratis.

Favorable Report on Diphtheria Antitoxin in London.—The report of the medical superintendents to the Metropolitan Asylums Board of London on the use of antitoxin in the treatment of diphtheria during the year 1896 has just been presented. It confirms and emphasizes the favorable conclusions reached in the previous year, when anti-

toxin was first used. The statistical results with regard to mortality are compared with those for 1894, the year immediately preceding the introduction of antitoxin and the one in which the lowest mortality had been recorded up to that time; they show a marked improvement in all classes of cases, and especially in the severer ones. The inferiority of the results obtained to those presented in the American Pediatric Society is attributed by the English medical periodicals to the inferiority and uncertainty of the antitoxin used.

Knives and Nails in a Man's Stomach.—An extraordinary case was recently reported from Vienna in which various household utensils were found on necropsy in the stomach of a woman. It is reported from Kansas City that a street performer known as the "Human Ostrich," who entertained his audiences by swallowing all sorts of articles, recently suffered so much from the effect of his last feat that he was obliged to submit to gastrotomy for relief. On opening the stomach the following articles were found: One four-bladed knife, 1½ inches long; one two-bladed Barlow knife, four inches long; one knife blade, 3¼ inches long; one knife blade, three inches long; two knife blades, each two inches long; one knife blade, one-inch long; thirty-two eight- and tenpenny fence nails and spikes; thirty-four sixpenny wire nails, sharp pointed; twenty-six shingle nails, each one-inch long; sixteen carpet tacks and small wire nails, one horseshoe nail, three large screws, one barbed-wire staple, and three ounces of fine glass. The man died two days later.

A New Hospital and Dispensary in New York.—There was filed at Albany, June 8th, with Secretary Hebbard of the State Board of Charities, an application for permission to incorporate the West Side Clinic and Hospital Association of New York City. The directors of the proposed hospital are Robert E. A. Borr, Charles G. Judson, S. F. Hayward, Robert Sherman, Drs. Louis A. Queen, Irving Townsend, George A. Shepard, Irving P. Sherman, H. S. Hathaway, F. M. Frazer, E. S. Munson, William H. Vanden Burg, and David Curtis of New York City, and Thomas E. Brown, Jr., of South Norwalk, Conn. In connection with the above announcement of application for incorporation it will be interesting to note what the action of the State Board of Charities will be in view of the fact that the west side of the city is already superabundantly supplied with clinics and dispensaries. It will be further interesting to observe the action of the various medical societies that have been organized for the purpose of curtailing the further growth of the free dispensary system.

The Prince of Wales and Antivivisection.—It is a well-known fact that the irrepressible and narrow-minded advocates of antivivisection have been endeavoring to dragoon the Prince of Wales into some admission that he would not sanction the expenditure of any of the money, collected in behalf of the hospital fund known by his name, upon those hospitals the staffs of which are alleged to perform experiments upon living animals. The Prince has avoided being drawn into the trap laid for him, and the

antivivisectionists have taken umbrage and decided to work against the interests of the fund. In his recent speech at the opening of the new school buildings at Guy's Hospital the Prince said: "I have made careful inquiries and have every reason to believe that whenever experiments upon animals are performed in this school, they are undertaken with the object of promoting advances in medicine and surgery which are likely to be of benefit to suffering humanity, and I have satisfied myself that such experiments are conducted under strict supervision by highly qualified investigators, and that in practice the only operations performed upon animals which are not in a condition of complete anesthesia are inoculations and hypodermic injections."

CORRESPONDENCE.

THE INTERNATIONAL CONGRESS AT MOSCOW.

To the Editor of THE MEDICAL NEWS.

DEAR SIR: The undersigned Chairman of the American National Committee, which was established at the request and under the authority of the General Committee of the Twelfth International Medical Congress, begs to inform the numerous gentlemen who are constantly applying for information concerning certificates, trips, fares, hotels, etc., that he has none to give, not having heard from the General Committee these two months.

Very respectfully,

(Signed) A. JACOB, M.D.

NEW YORK, JUNE 14, 1897.

OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

NEW CLINICAL AMPHITHEATER OF THE MEDICO-CHIRURGICAL HOSPITAL—PHILADELPHIA COUNTY MEDICAL SOCIETY—PHILADELPHIA PATHOLOGICAL SOCIETY—GRADUATION EXERCISES OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

PHILADELPHIA, June 12, 1897.

THE construction of elaborate operating-rooms by the hospitals of Philadelphia has of late become so common that it arouses but passing attention, unless one of these structures happens to be of a particularly elaborate nature, involving a large expenditure of money, and the embodiment of many extremely advanced ideas. A building of this kind, for it has cost a large sum to erect, and certainly comprises every modern detail in its construction, is the one recently completed by the Medico-Chirurgical Hospital, which was open for inspection during the late meeting of the American Medical Association in this city. The exterior is in the Renaissance style of architecture, with a base of brownstone supporting a superstructure of terracotta and Pompeian brick. Marble tablets inscribed with the names of Hippocrates, Galen, and Celsus on the one hand, and of Lister, Pasteur, Koch, Agnew, Goodell, Pancoast, and Gross on the other are placed below the large arched windows of the front of the building.

The operating amphitheater, with rows of individual

seats for five hundred students, is floored and wainscoted with marble, plastered with a thick enamel finish, and lighted by a large sky-light to the north. By means of a system of pipes encircling it, the whole room may be completely flooded with a large volume of water, which is carried off by ample drains at its base. Adjoining the arena are rooms for the storage and cleaning of instruments, for pressure sterilizers, for dressings, and for private operations. An important feature of the building is the heating and ventilating plant, insuring a free circulation of filtered fresh air, heated to any desired temperature, and, in the amphitheater, delivered through apertures beneath the students' seats, and removed through large exhaust ventilators. Taking the building either as a whole, or considering it in detail, it must strike the observer that the claims of its projectors and friends that it is the finest in the world must be regarded as substantiated.

The last stated meeting of the Philadelphia County Medical Society, held on June 9th, was devoted to the consideration of the treatment of high myopia; and two interesting papers on this subject were read, one by Dr. T. B. Schneideman, on "The Proposed Operative Treatment of High Myopia," and the other by Dr. Edward Jackson, on "The Treatment of Very High Myopia." Dr. Schneideman's paper dealt with the results claimed by various foreign ophthalmologists in removing the crystalline lens for the correction of this condition, and gave a succinct review of the opinions held by these operators. After discussing the faults and discomforts of concave lenses of high correction, and their impracticability for general use, he described the technic of the operation, and spoke of the good results attending this procedure, such as clear vision without a lens, improvement in visual acuity, cessation of the myopia, and restoration of binocular vision. Dr. Jackson's paper maintained that in the majority of cases of very high myopia the operative treatment should not be considered, and that the removal of the crystalline lens was not attended by such freedom from risk as the European operators claim. He advocated the use of high correcting glasses, and showed the fallacies in arguments against their employment, although admitting the field of usefulness of the operative treatment in a small number of cases in which other means of treatment prove inefficient. In closing, Dr. Jackson urged that the condition be prevented by early attention to the care of ordinary myopia.

In the joint discussion of these papers, Dr. W. L. Pyle explained that the very limited abilities of most Continental opticians in the mechanical execution of lenses probably would account for the preference of foreign ophthalmologists for the operative treatment of high myopia, rather than its correction by glasses, but that this condition did not exist in this country, thanks to the skill shown by American opticians. Dr. J. P. Thorington thought that in view of the personal equation which must enter into the consideration of every case of myopia, one could not arbitrarily recommend either a high or a low correction as the best treatment; but he preferred to employ full correction in cases not exceeding 6 D. Dr. S. Lewis Ziegler said that he would rather prescribe a full

correction for distance, with a modification for the reading glass.

At the last meeting of the Philadelphia Pathological Society, held on June 10th, Dr. W. M. L. Coplin showed some interesting specimens, both gross and microscopic, from a case of cirrhosis of the liver, this organ being uniformly "hobnailed," extensively atrophied, and showing marked evidences of capsulitis; microscopically there were seen areas of inflammatory interlobular exudate, and signs of a probable septic infection. Dr. Coplin also showed specimens illustrating hepatic cirrhosis in a pig; the animal had been fed for a long time on buttermilk, which contained a small percentage of alcohol, and to this fact the speaker was inclined to attach a questionable etiologic import.

Dr. Joseph Sailer showed several specimens of degenerative changes in the nerve-cells, and described minutely the alterations in nucleolus and protoplasm constituting the condition. He took the ground that nerve-cell degeneration was not characteristic of any particular disease, but was only an evidence of some pathologic change.

A specimen of a kidney with double ureter was presented by Dr. Frank White, who detailed the history of the case, and demonstrated the pathologic condition.

Dr. J. Dutton Steele showed a tuberculous kidney, with involvement of the ureter down as far as the bladder, and infiltration of a part of the latter viscus. He was inclined to consider the case one of possible primary renal tuberculosis, although stating that the patient from whom the specimen was obtained also had a tuberculosis pneumonia, and old apical adhesions.

The graduating exercises of the Class of 1897 of the Medical Department of the University of Pennsylvania were held in the Academy of Music on June 9th, in conjunction with the other departments of the University. Dr. John Marshall, Dean of the Department of Medicine, conferred degrees upon 147 graduates—the largest class of all the departments; the Faculty Auxiliary to Medicine granted certificates to a number of others, who had completed courses in medical jurisprudence and other branches. A large number of prizes were awarded for general excellence, and for the best examinations in the various branches of medicine.

OUR VIENNA LETTER.

[From our Special Correspondent.]

THE EXISTENCE OF THE GERMAN UNIVERSITY OF PRAGUE THREATENED BY LEGAL REGULATIONS AS TO THE USE OF THE BOHEMIAN LANGUAGE—AN ATYPICAL CASE OF DIABETES—DIABETES AND THE INTERNATIONAL CONGRESS AT MOSCOW—TRACHOMA ENDEMIC IN MANY PARTS OF HUNGARY—A BULLET IN THE FEMUR FOR EIGHTEEN YEARS, AND CHRONIC LEAD POISONING.

VIENNA, May 24, 1897.

DURING April a law was passed by the Austrian legislature for the regulation of the language to be used in the transaction of business, official and legal, in Bohemia. In accordance with the temporizing, conciliatory spirit which has characterized the attitude of the central govern-

ment in Austria toward the provinces since Count Taaffe's ministry, some ten years ago, the new law makes the use of Cjeckish or Bohemian obligatory in legal matters. This would be of no interest to the world in general, though it might be looked upon as a step backward in culture to further encourage the use of a Slav tongue where German is gradually acquiring supremacy, were it not that this law threatens to injure very seriously the German University of Prague.

As a concession to Bohemian National feeling about eight years ago a Bohemian University was established in that city, and this of course has taken many students from the German University. As the new law makes it necessary for anyone who holds an official position to know Bohemian, students from even German parts of the province will now find it advisable to pursue their studies in that language. The faculty of the German University, at a meeting held May 12th, signed a formal protest to the Imperial government declaring that this law, if enforced, will mean the practical annihilation of their University. As the German University of Prague is the oldest of the German universities in Europe, and has always been widely known for its broad scholarship and thorough, progressive, scientific spirit it seems too bad that it should be the victim of the narrow, short-sighted policy of a government which yields to party and sectional feeling without consideration for scientific progress.

The medical world would seriously miss the work which has been done at Prague if it were to be blotted out, and yet it is almost to be blotted out for the future if it is to be known only through the shadowy medium of the Cjeckish tongue, and such abstracts from it as may occasionally find their way into German. Good sense and better judgment will surely prevail in government councils and keep them from sinning so grievously against progress as to look for the reintegration from narrow supposedly National feeling of a language which possesses no literature, and which practically shuts out those who employ it exclusively from the circle of European intercourse.

At the last meeting of the Vienna Medical Club Dr. Kolisch presented a very interesting atypical case of glycosuria or diabetes. The patient, a girl of twenty, was passing urine which contained from five to eight per cent. of sugar. There was no doubt that this was grape sugar. The condition was accompanied by none of the usual symptoms of diabetes—no polyuria, no polydipsia, no loss of weight, or notable increase in appetite, and there was a general sense of well being, in marked contradiction to what might have been expected under the circumstances. Closer study of the cases only made the anomalous character of the glycosuria clearer. An absolute diet consisting only of fat and albuminous material did not cause the disappearance of sugar from the urine. Yet when the glycosuria was at its maximum no excess of sugar could be demonstrated in the blood. The urates were not increased in the urine at any time, and a careful examination of all excretions showed that metabolic processes were not using up more material than was ingested. The patient was in a good state of "nitrogenous equilibrium" with the balance slightly in her favor, so that the

absence of the loss of weight, of polydipsia, and of bulimia was readily explained. There was absolute accretion of material rather than waste.

Dr. Kolisch is not sure that he may not have to do with a beginning genuine diabetes latens or insidiosus. Several such irregular types have been reported, but this case does not seem to conform to any of them. The absence of hyperglykemia, *i.e.*, increased amount of sugar in the blood at times when large amounts of sugar are being excreted would seem to indicate a sugar excretory function (or lesion?) of the kidneys. For the series of symptoms observed in the case—glycosuria, without azoturia, polyuria, and hyperglykemia—the name "tachyglykuria" is suggested. The significance of the symptoms as was pointed out, is like that of many other metabolic anomalies, a mystery, and must remain so until a more thorough knowledge of organic functions will enable us to better understand metabolic processes generally.

With regard to diabetes, there seems to be nearly everywhere an air of expectancy as to what the very near future will reveal. Two of the men who in very recent years have added most to our knowledge of the disease, Lépine and Minkowsky, are to read papers on "Forms of Diabetes" at the International Congress at Moscow. The contributions are confidently expected to clear up some disputed points in the physiologico-pathologic groundwork of the disease, and especially to add to our knowledge of the causes and conditions obtaining in diabetic coma.

From Vienna some interesting developments in connection with diabetes, from the clinical and diagnostic standpoints, are looked for. That the symptom-complex of diabetes is not an anatomic or etiologic unity has long been conceded; that it is also not a clinical symptomatic unity is becoming clearer and clearer, though this has long been the accepted teaching. More exact diagnostic methods as to the urine and blood contents, not only as regards sugar, but especially for other abnormal materials are to be demonstrated, and the diagnosis of progress of the disease toward its fatal termination in coma made available for the practitioner for prophylactic purposes.

A recent official report from Hungary reveals the existence of a very unfortunate state of affairs there with regard to the contagious eye diseases. At the end of last year there were over 30,000 cases of trachoma in that country. The affection is practically endemic in certain of the lowland provinces, as Donan and Theiss, but has not spared even the high mountainous districts. Attention is called to the liability of contagion where men associate without proper precautions. As immigration in these later years have brought to the United States many of these people who huddle together in our mining regions without the simplest hygienic precautions, the necessity for watchfulness in the matter is evident. The germs of the disease are already present, and if the salubrious air of the Hungarian mountains, and the rugged health of the mountaineers, have not availed to protect them in their native land the gradual spread of the disease may be looked for under less favorable conditions with us.

The *Wiener Medicinische Zeitung* for May 18th contained an account of the removal of a bullet from a femur, which had been lodged there since the last Turkish war. The interest of the case lies in the fact that all the symptoms of chronic lead poisoning had developed, and absolutely nothing was effectual in relieving them until the bullet was removed. It had been in place for about nineteen years, and had given rise to a fistula which has been continually discharging pus from the very beginning. It was probably the persistent presence of these secretions that prevented the bullet from becoming encysted and brought about the continual absorption of sufficient quantities of lead to give rise to typical lead colic, the blue line on the gums, obstinate constipation, chronic indigestion, and serious anemia. All of these symptoms disappeared after the removal of the ball, and the patient now, two years after the operation, is in excellent general health. The number of cases on record of lead poisoning from the presence of bullets in the body is rather small, and they always seem to have been accompanied by the fistulous discharging condition that occurred in this case.

TRANSACTIONS OF FOREIGN SOCIETIES.

Berlin.

SURGICAL TREATMENT OF ULCER OF THE STOMACH—
SURGICAL TREATMENT OF DIFFUSE PERITONITIS—
USE OF MURPHY'S BUTTON IN GERMANY—NUTRI-
TION AND INTESTINAL PUTREFACTION—PYELO-
NEPHRITIS IN CHILDHOOD.

At the twenty-sixth congress of the German Society of Surgery held in Berlin from April 21st to April 24th, V. LEUBE read a paper on *the surgical treatment of ulcer of the stomach*. By careful attention to the minutest details of non-operative treatment ninety-six per cent. of the cases of ulcer of the stomach can either be permanently cured or much improved. Less than two per cent. are treated without benefit, and two per cent. of the patients die. These figures are given as the result of experience with over a thousand cases treated by the author during the last ten years, by rest in bed for at least ten days; the application of poultices as hot as can be borne, the poultices being changed every ten minutes for ten days; the daily ingestion of lukewarm Carlsbad water, and the most carefully regulated diet for a period of some weeks.

Leube gives as indications for operation: (1) Small but continuous hemorrhages. (2) Pain and vomiting which the treatment above fails after several weeks to relieve. (3) Perigastritis as the result of adhesion, although the non-operative treatment is first to be tried. (4) Perforation into the abdominal cavity. As recovery in this complication is only possible when the stomach is empty, and is even then rare, operation should be performed immediately. Practically the same indications for operation were given by MIKULICZ: (1) When the life of the patient is threatened directly or indirectly by hemorrhage, perforation, or starvation. (2) When thorough medical treatment gives little or no result and the patient's pleasure in life is taken away by his suffering.

KOERTE warned against operation in cases of profuse

hemorrhage. In one such case it was found that the ulcer had eaten into the pancreas and finally eroded the splenic artery. In another case the blood came from a branch of the pancreatico-duodenal artery.

KOERTE discussed the *surgical treatment of diffuse peritonitis*, basing his conclusions upon a study of ninety-nine cases produced by disease of some organ; in which are not included cases of peritonitis after injury, strangulated hernia, or intestinal obstruction. Puerperal septicemia, carcinomatous, tuberculous, and chronic peritonitis are also excluded. Of these ninety-nine patients seventy-one were operated upon, of whom twenty-five, or thirty-five per cent., recovered. Of the remaining twenty-eight, some were too far gone for operation, while in six, it was not evident that there was any purulent effusion into the abdominal cavity, and the general condition of the patient gave hope of recovery without operation. All of these six patients recovered.

The object of operation is (1) the removal of the exudate in order to limit extension of the infection, and (2) the relief of the abdominal cavity from high pressure, the restoration of the activity of digestion, of the circulation, and of respiration.

Operative interference should be as rapid and as simple as possible. The chief object is the removal of the purulent exudate by irrigation with hot water or by sponging. An antiseptic solution must not be used. If there is a perforation in the stomach or duodenum, it should be closed. For perforations lower down, drainage alone may be used if the opening is not readily accessible to suture. Multiple counter openings are no longer advised.

In the after treatment the strength of the patient should be sustained by rectal injections, intravenous saline injections, and hypodermic stimulation. Gastric lavage and high enemata are also serviceable. Morphine, not opium, should be given to relieve pain.

KOENIG called attention to the fact that most cases of peritonitis following perforation of the appendix are not really cases of general peritonitis, but consist of one or more encapsulated foci of suppuration, while a part of the abdominal cavity remains intact. These, therefore, should not be described as cases of diffuse peritonitis.

ISRAEL, in order to reduce the virulence of the exudate, diminishes abdominal pressure as much as possible by a long crucial incision, which he leaves open. In this manner he has been able to decrease considerably the mortality in such cases.

MARWEDEL referred to the use of *Murphy's button* in *Czerny's clinic*. Fifty-five operations were performed with its aid. The results were in the main satisfactory, although in three cases the button failed to pass down the intestine, causing perforating peritonitis and death. Brentano, who collected records of 328 anastomoses with the button, found indication of cicatricial contraction in only three cases. Marwedel agrees with Murphy in considering a superimposed suture not only useless, but dangerous.

At the Union for Internal Medicine, session of April 12, 1897, ALBU, in discussing the subject of *nutrition and intestinal putrefaction*, said that no successful at-

tempts to disinfect the intestine have as yet been made. The nearest approach to this is obtained by the use of laxatives, which remove bodily a great portion of the contents which are capable of putrefactive changes. The words "sepsis of the intestinal tract" are nothing more than a phrase, for neither by medication nor by the most thorough use of enemata can one free the intestine from bacteria or the urine from the absorbed products of their action. The flooding of the drug market with so-called intestinal antiseptics is calculated to disgust the serious physician with the use of therapeutic remedies.

At the session held May 3d, BAGINSKY spoke of *pyelonephritis in childhood*, a rare disease, of which he has seen, in one form, four cases. Its characteristic points are an intermittent fever with alternating subnormal and high temperatures, and the varying condition of the urine, which, sometimes, is perfectly clear, and at other times has a fixed sediment. The bacterium coli may be demonstrated in freshly voided urine. In this series of cases there was obstinate constipation, the fecal masses being wrapped in membrane.

In a second form of the disease, four cases of which Baginsky had also seen, the pyelonephritis follows upon a long-continued and wasting diarrhea. This form of the trouble usually ends fatally, and the kidney is found to contain, besides suppuration in the pelvis, small abscesses in the substance, while the tubules swarm with masses of bacterium coli, and may also contain other germs.

London.

VENEREAL TUMORS IN DOGS CONVEYED BY COITUS—RECTAL CONCRETION—RUPTURE OF THE HEART WITHOUT PERFORATION—NON-TUBERCULOUS POSTERIOR BASIC MENINGITIS IN INFANTS—A NOVEL CURE FOR EXTROPHIC BLADDER—TUBERCULOSIS AT AN ADVANCED AGE—RAW MEAT AND HOT WATER IN GOUT.

At a meeting of the Pathological Society, held April 6th, SMITH and WASHBOURN described a series of *infective tumors occurring in the genitals of dogs*. A dog affected with a tumor on the penis served twelve bitches, of whom eleven became infected. Three of these bitches were then served by a second dog, who developed a growth on his penis. He in turn served two healthy bitches, one of whom he infected. By artificial inoculation a similar growth was produced on the penis of a healthy dog. The tumors commenced as minute papules, growing slowly and becoming at about the end of twelve months lobulated masses, which were easily removed from the underlying tissues, together with the mucous membrane to which they were attached. In one case there was infiltration of the muscular wall of the vagina, and in another the lymphatics of the groin were affected. There was nothing in the microscopic appearance of the tumors to distinguish them from human sarcomata. There was no tendency to spontaneous cure, but if removed at an early age, the tumors did not recur. In two cases the tumors were successfully transplanted, and developed growth in a manner similar to that already described by writers upon the infective nature of cancer.

CRIPPS exhibited a *concretion which he removed from*

the rectum of a woman aged sixty, who for fifteen months had suffered from diarrhea, accompanied by fluid stools and mucous. The concretion was so large and hard that it was necessary to divide the anus backward in order to extract it. It weighed eight ounces, and was found to be composed entirely of fecal material.

At the session of May 4th, FOX exhibited the *heart of a stout woman aged sixty-nine which was ruptured, but not perforated*. The patient was seized with precordial pain after a cold bath. Morphin and venesection gave some relief, but forty-eight hours later, after making a slight movement, she suddenly died. The pericardium was found to be filled with blood, and there were two small rents in the left ventricle which did not extend through the whole thickness of the heart's wall. It appeared that the distention of the fatty heart had ruptured the exocardium and some muscular fibers, causing the escape of blood into the pericardium, and death followed forty-eight hours later.

Before the Royal Medical and Chirurgical Society, April 13th, CARR read a paper on *non-tuberculous posterior basic meningitis in infants*. This is a distinct form which has not up to the present time received adequate recognition. It mainly affects the posterior portion of the base of the brain, but is entirely independent of tuberculous meningitis. It runs a subacute or chronic course with fairly characteristic symptoms during life, and has constant and definite *post-mortem* appearances. Carr has seen eleven cases, all occurring in healthy infants under one year old. The onset was sometimes slow, sometimes not so gradual, but in all there were severe vomiting, retraction of the head, and stupor passing into coma, which lasted usually several weeks. The cases all terminated fatally in from five weeks to three months.

At autopsy, inflammation of the pia was found over a definite area at the base of the brain, hydrocephalus, and in some cases closure of the opening between the fourth ventricle and the subarachnoid space. In no instance was there any sign of tuberculous disease in the cranial cavity or elsewhere, and its possible connections with injury, diseases of the ear, congenital syphilis, and epidemic cerebrospinal meningitis were considered and abandoned. In two cases the lateral ventricles were tapped; in one instance with marked benefit. In two other cases trephining proved quickly fatal owing to too rapid escape of the fluid.

At a meeting of the Medical Society held April 11th, HARRISON showed a *boy of fifteen years with extrophy of the bladder, whose right ureter had been brought out through a lumbar incision*, the left kidney previously having been removed. The operation was completely successful. The urine which flowed from the wound was clear and showed no tendency to form phosphatic deposits, and did not irritate the skin.

At the session held April 26th, MARSH called attention to the fact that *tuberculosis in old people is by no means as rare as a perusal of the text-books would lead one to suppose*. He mentioned three cases of Pott's disease with abscess within his own experience in patients aged sixty-nine, seventy, and seventy-four. Other tuberculous

lesions which he had seen in the seventh and eighth decades were tuberculosis of the bones and joints, tubercular epididymitis, and tuberculosis of the cervical axillary glands.

ARMSTRONG pointed out the *advantages of an exclusive meat diet in certain cases of chronic gout*. By giving patients nothing but red meat and hot water, it is possible to obtain rapid diminution of abdominal girth, loss of fat and flabby tissue, an increase in the quantity of the urine, and the ultimate disappearance of urates, alkaloids, and toxins from the urine.

At the meeting of the Clinical Society, held April 9th, MARSH described a *sarcoma of the prostate in a patient aged fifty-seven*. The mass grew to be so large that it interfered with defecation. A colotomy was performed, but the patient died. At autopsy the tumor, which measured seven and one-half by four and one-half inches, was found to have displaced the bladder and filled the pelvis. Microscopically, the tumor was a spindle-celled sarcoma.

JOHNSON reported a case in which *axial rotation of a pedicle of an ovarian cyst was met with in a child of five years of age*. Operation was performed, and an uneventful recovery followed.

At the meeting held April 23d, MARSH showed a case of *hydronephrosis in which the collection of fluid was found to be between the kidney and its capsule*. Nothing in the history of the case or in the condition of the parts at operation indicated the cause of the hydronephroses.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

The Semicentennial Meeting, Held at Philadelphia, June 1, 2, 3, and 4, 1897.

SECTION ON PRACTICE OF MEDICINE.

(Continued from page 805.)

THIRD DAY—JUNE 3D.

THE first paper read at the morning session, entitled SOME OF THE CLINICAL USES OF THE X-RAYS IN MEDICINE

was presented by DR. F. H. WILLIAMS of Boston. During the past year he had had more than 500 cases in which he had used the X-rays, and he had never seen any harm or inconvenience follow its use. His conclusions regarding the results attained by the use of the X-rays were as follows: The normal brightness of the chest is increased in pneumothorax and emphysema, and markedly decreased in tuberculosis and pneumonia. Obscure cases of aneurism can be diagnosed, and pericardial effusion be distinguished from enlarged heart. In tuberculosis and pneumonia the excursion of the diaphragm is limited, while in pneumothorax and emphysema its position is much lower than normal. The normal outlines of the organs may be changed by the presence of abscesses and new growths. The fluoroscope gives evidence of returning health, and more early information as to the advent of pneumonia and tuberculosis. It furnishes the easiest way

to ascertain the amount of fluid in the pleural or pericardial sac and shows the amount of displacement of the heart, and in diseases of the heart it is especially serviceable. In some cases the diagnosis can be made by the use of the X-rays alone. As an aid to diagnosis it is in daily use in the Boston City Hospital as an adjunct to the stethoscope. In all cases of doubt the first X-ray examination should be checked by a second. The Crookes' tube should be about two or three feet away from the patient as the shadow on the screen will be too large if the tube is placed closer.

DR. C. L. LEONARD of Philadelphia read a paper on the same subject, entitled

THE APPLICATION OF THE ROENTGEN RAYS TO MEDICAL DIAGNOSIS.

The rays promise to be of especial value in medicine, for they eliminate the factor of personal equation in diagnosis, and replace the mental picture which a physician forms of the condition of internal organs from a physical examination with the more exact skiagraph. The application of these rays to medicine is attended by very many more difficulties than their application to surgery, for in medicine it is necessary to deal with substances the opacity of which is not marked. The stomach, not being opaque and hence not discernible in a skiagraph, means have to be adopted to make it so, and this is accomplished by injecting into it an emulsion of bismuth which coats the walls and renders the organ more opaque than the pelvic bones. Opacity, as used in Roentgen-ray nomenclature, is merely a relative term.

TUBERCULOSIS ANTITOXIN

was the title of a paper read by DR. E. A. DESCHWEINITZ of the Biochemical Laboratory of the Department of Agriculture, Washington. His efforts had been directed toward the production of an antitoxin serum, and his experience had been gained wholly by experimentation upon animals. He had tried injections of tuberculin and also of an antituberculous substance, and of combinations of both. He had found that tuberculin, when injected into horses and cows, produces a substance in the serum which, when injected into animals, protects them from a fatal dose of attenuated tuberculosis germs, or retards their development. But in order to produce this antituberculous substance (whatever it might be) a great deal of time is required, and some of his animals have been under observation for several years, and their serum does not seem to protect animals from tuberculosis any better than it did at first. An antitoxic substance can be produced, but as yet it is small in amount. He hoped that a satisfactory antitoxic substance will soon be obtained, but as yet the treatment is in the experimental stages.

A paper on the same lines, entitled

ANTITUBERCULIN

was read by DR. J. MCFARLAND of Philadelphia.

DR. D. L. ROCHESTER of Buffalo read

A REPORT ON THE TREATMENT OF TUBERCULOSIS.

He had used Edson's aseptolin and Paquin's antitubercle serum, but had not obtained satisfactory results with

either. All the patients whom he had treated had bacilli in the sputum, thus confirming the diagnosis of tuberculosis. Aseptolin had been tried for four to six months, and was followed by a subsidence of the sweating, a gain in weight, and an increase of appetite, but the local conditions did not change. The cough and expectoration also were lessened. Four of the patients treated with aseptolin died, one, he believed, because of the treatment, and in no case was there a cure. The improvement noted continued during warm weather while the patients were able to be out of doors, but ceased when cold weather returned. It was true that the sweating was checked, but as this result could be equally well obtained in other and less dangerous ways there was no excuse for using the treatment for this purpose. Paquin's antitubercle serum is worse than useless, for it not only produced no good results, but it caused acute pain at the seat of the injection and produced a severe urticaria. The most satisfactory substance he had yet obtained for the treatment of tuberculosis was the nuclein prepared by Bonn of Ann Arbor. He had yet to see a case in which it did not aid the cure. He had seen some cases in which there had been a cure while taking nuclein, and in all there was improvement.

The conclusions he had reached from his investigations were that nuclein does no harm if the injections are not too rapidly increased; that the injections are not painful. He had seen cases recover, that is, that all signs of the cavity in one lung had disappeared, and in one case the bacilli had disappeared. Another case might also be reported as cured, as the patient felt so well that he neglected treatment. Whatever the form of specific treatment adopted, plenty of exercise should be taken. The treatment should begin by keeping the upper air passages clear. For the dyspnea, which is so frequent, fluid extract of quercacho is the best remedy. For the fever nothing is needed beside the nuclein. Sponging should be persisted in. Sweating will generally disappear with the use of the nuclein, but if not, atropin and aromatic sulphuric acid are the best remedies. For anemia bone marrow should be given.

A FURTHER REPORT ON THE TREATMENT OF TUBERCULOSIS BY IODOFORM INUNCTIONS

was the title of a paper, read by request, by DR. L. F. FLICK of Philadelphia. He now uses euophen instead of iodoform and the result is equally good, while the treatment is much less offensive. Ten cases were reported in the first series as having been treated, and of these one patient was reported as apparently being well, three as approaching a cure, four in which the disease was arrested, and two in which there had been a relapse and the patients were doing badly. It was now eight years since he began treating tuberculosis by this method, and he had now a number of additional cases to report. Of the ten first reported, eight had since died, one was apparently well, and one had disappeared from observation. Of the eight patients who had died, seven had succumbed to tuberculosis and the other to some abdominal trouble, so that the best results he could claim for the treatment

was ten per cent. of cures. Of five additional cases hitherto reported three patients had died, one was well, and one had disappeared from observation. Of fifteen patients, eleven had died, two were well, and two had disappeared. Of the two who had disappeared one probably had died and the other probably had recovered. This gave twenty per cent. of recoveries. More recent statistics gave practically the same results. It was unfair, he said, to draw conclusions in regard to a treatment of tuberculosis carried on such a short time. Unless it has stood the test of a number of years it is unsafe to place a remedy upon the list of curative agents.

At the afternoon session the first paper read was by DR. E. B. BORLAND of Pittsburg, entitled

CURABILITY OF PULMONARY TUBERCULOSIS.

Scientific physicians, he said, in the treatment of tuberculosis, should make use of the light which still shines clearly instead of following after false ones. Tuberculosis may be considered a curable disease if treated early and properly, but when it has once impregnated the system nothing is known which can eradicate it. He does not believe in the theory of immunity, for if there were anything in this doctrine the child of an immune mother should be entirely free from all danger, which experience has not shown to be the case. The question then arises: Can tuberculosis be cured; and if so, by what means? If latent tuberculosis is to be cured it must be taken in hand early, but unfortunately this is seldom done at the present day. Nature frequently produces cures of tuberculosis in man, and physicians should endeavor to copy Nature's methods. Among the most essential of her remedies is dry air, but he thinks that altitude probably has little to do with the cure, though it is certainly true that in high altitudes the unused air-cells are called into activity and developed. The condition of the excretory organs should be attended to. Woolen clothing aids the excretory processes, while cotton clothing checks it. Nature clothes all her animals in wool, and only foolish man insists upon wearing cotton fiber. Cod-liver oil and antiseptic inhalations should be used when indicated.

The average life of seventy-seven per cent. of tuberculous patients may be set down as being two years. Strict sanitary methods should be adopted to prevent the spread of the disease. If everybody could be prevented from spitting on the sidewalk, it would do more to prevent the spread of tuberculosis than all of Koch's tuberculin. To-day physicians are lying supinely upon their backs hugging the delusive phantom of a specific instead of making use of the methods of treatment already at hand.

DR. DENNISON of Colorado said that he wished especially to endorse the statement of Dr. McFarland as to what tuberculosis really is. Since there had been some adverse opinions expressed as to the views contained in the papers of Drs. McFarland and Rochester, he wished to say that they were in line with his experiences in Colorado. First of all, he entered a protest against Dr. Cohen's statement, that seeking after a specific for tuberculosis is like searching after a will-o'-the-wisp, and he desired to

commend the good work done in this country by Klebs, Trudeau, and Von Ruck in their search for an antitoxin. It seemed almost impossible to him that anything can be proved by using tuberculin on healthy persons, and clinical experience is necessary to test the virtue of any antitoxin which might be obtained. The argument advanced that there is such general infection of the human race with tuberculosis that a certain amount of antitoxin must be present in the blood of all individuals, or all would die, had no bearing on the question of antitoxin. The immunity of tuberculosis is merely a relative immunity. This is to be obtained by building up the individual cells, thereby increasing the powers of resistance. He had used antiphthisin with some success, and he did not think these good results were due entirely to the climate of Colorado, as had been suggested. Of course this climate is a factor in the cure, and altitude is an important element, notwithstanding the assertions of Dr. Borland to the contrary. Rarefaction, of the air, as found in Colorado, leads to increased pulmonary exercise. As to artificial immunity against tuberculosis, he hoped that the time will soon come when this will be rendered possible by the discovery of the right antitoxin. He believed that this exists somewhere in tuberculin. It might be in Koch's new remedy, which is made from an extract of the live bacilli. But somewhere there is an antitoxin in the bacilli which, if given in the proper doses, will produce an immunity. He believed that Klebs and Von Ruck are coming nearer and nearer to the solution of the question every day.

DR. KLEBS said there are two methods of great importance in the search for an antitoxin; one is work in the laboratory and the other is clinical work, and these should be entirely distinct. He had been sorry to hear it said that the search for an antitoxin is a chase after a myth, for he believed that to be a very dangerous doctrine. A belief in such a doctrine will put a stop to all investigation. Animal experimentation is necessary, and by proving in this way that tuberculosis in animals is curable the clinician has something to go on. In the study of tuberculosis a long period of observation is necessary, and this can best be obtained in the laboratory. The remedy must be tried there before it can be subjected to clinical tests.

An important thing in the treatment of tuberculosis is the hygienic management of the case. Hygiene is the most important factor in the treatment of tuberculosis, but it is likely to fail of its purposes because it is impossible to get every one to carry out the details for any length of time, and continued perseverance in one direction is the one essential thing in the treatment of the disease. To enforce hygienic rules it is necessary to have the means of carrying them out. This has been best accomplished in this country by Trudeau, who stands foremost in the treatment of tuberculosis at his sanatorium in the Adirondacks. Patients are there put through the strictest hygienic training, with the result that when they leave, after about a year's residence, they go out into the world knowing how to prevent the spread of the disease. For this work institutional treatment is necessary, and the

State can do more in that direction than individuals. If the Association would take this matter up and urge its importance upon public opinion much good might be accomplished.

DR. ALLEN expressed the belief that the tubercle bacilli exists in the inflammations, and that the proper mode of treatment consists in a destruction of the pabulum on which they grow and develop. It seems to be the preconceived idea in some minds that all who believe in a specific treatment for tuberculosis should avoid dietetic and hygienic treatment, but this is not so. He had employed Paquin's serum to some extent, and one patient had recovered. There is not a single bacillus in the sputum at the present time, whereas formerly they were very plentiful. The man is now doing hard work, and is improving every day. Two other patients have been very much improved, but in one there has been such a destruction of tissue that a cure is out of the question. If patients with tuberculosis are taken in hand promptly and treated with creosote and cod-liver oil and sent to a suitable climate, like that of Colorado, he believed they can be cured.

DR. J. N. UPSHUR of Richmond said that an essential factor in the development of tuberculosis is malnutrition. In the South this lesson has been taught by the experience of the negro. Before the war it was a rare thing to see tuberculosis in the negro. Scrofula was common, but the tubercles did not develop in the lungs. This was due to the fact that at that time the negroes lived largely in the open air of the country and had plenty of nourishing food. Since the war all these conditions have changed. The negroes have migrated to the cities where they live in conditions of squalor and overcrowding, and frequently with not enough to eat, subsisting largely on decayed vegetables and over ripe watermelons. These are conditions tending to malnutrition, and here tuberculosis is found to be increasing at a very rapid rate. The lesson to be drawn from these conditions is that on account of malnutrition tuberculosis of every kind is rife among these people.

DR. GEORGE M. STERNBERG of Washington said he was very much surprised to hear the talk about the doctrine of the infectiousness of tuberculosis. The infectiousness of the disease can be demonstrated by these gentlemen upon themselves at any time if they care to do it. We cannot have tuberculosis without the presence of the tubercle bacillus, but something more than this is wanted, the susceptibility of the individual. This susceptibility depends upon family characteristics, insufficiency of diet, anemia from any cause, and upon other conditions. Another point is that there is a certain amount of antitoxic substance in every individual which can be overcome, and this overcoming of the antitoxin depended upon two factors, *viz.*, the virulence of the tubercle bacilli and the size of the dose. It has been found, for example, that a small number of bacteria may not give rise to the disease in an individual, while a larger dose will produce it, so that people who live in places where there is a large amount of dried expectoration in the air are more likely to take the disease than those liv-

ing in a sparsely settled and healthy locality. There are other factors also which act as exciting causes to an existing predisposition. Such a condition is dust which irritates the lungs and leads to a chronic inflammatory condition of the mucous membranes.

DR. JAMES TYSON of Philadelphia stated that as one who had made use of Dr. McFarland's antituberculin he wished to say a few words in regard to his experience with it. He was glad to learn that a search is being made for an antituberculin, but his experience with that produced up to this time has been absolutely negative, owing, perhaps, to the short time he has been experimenting with it. Even in that short time, however, he has experienced the greatest difficulty in persuading patients to take the remedy. What with urticaria and painful arms the patients have been nearly in a state of rebellion, and he was almost glad when the supply of antituberculin had been used up. He hoped that those who were working on these lines would discover some other method of administering the medicine than by the hypodermic syringe, and thus do away with one of the greatest drawbacks to the use of the serum.

DR. PAUL PAQUIN of St. Louis said that it is evident that every one engaged in the search for a tubercle antitoxin is convinced that tuberculosis is such a mixed malady that we must depend for its cure upon remedies of different kinds, and he agreed with those who believed that no one remedy can cure tuberculosis in every form. He doubted whether a specific for all forms of tuberculosis, pure or mixed, will ever be found. Certain forms of tuberculosis, however, will recover in spite of the doctor. We must acknowledge that Nature can cure tuberculosis, and we should endeavor to adopt her methods. If we reflect on the results obtained in other maladies by the use of antitoxins we will be justified in trying to imitate Nature in her cure of tuberculosis.

DR. MCFARLAND said that Dr. Tyson's experience with his antituberculin agreed with that of Dr. Wilson so far as the urticaria was concerned, and he thought it was due to the fact that the serum was too fresh. It had been said that tuberculosis is a disease which might get well of itself. Nobody doubted that, and laboratory workers are trying to find out *why* it gets well and *how* it gets well, so that they may copy Nature's methods. It is a fact which he could not explain, but for which he was very sorry, that laboratory workers have not the sympathy and help of the clinician. As a matter of fact the laboratory worker is the clinician's best friend.

DR. DE SCHWEINITZ, in closing, said that tuberculin is a solution of some of the products of the germs, but is not a solution of all the germs, because some of the metabolic products are destroyed. For this reason tuberculin cannot have the same effect as if the live bodies of the germs themselves were injected into the body.

DR. ROCHESTER said he was glad to find that all recognize the fact that malnutrition is one of the serious conditions predisposing to tuberculosis. While not a laboratory worker himself, he wished to make a severe criticism of the attack that had been made on the laboratory worker. For any man to disparage the work of laboratory men is

utterly unjustifiable. For the past ten or fifteen years all the greatest advances in medicine have been made by the laboratory worker. He felt that he should apologize for having mentioned a preparation that has been advertised in the way that aseptolin has, and he thought that the profession should not use remedies advertised in this way. He had used it only at the earnest request of his patients. The urticaria which Dr. Tyson complained of in the use of antituberculin was similar to that which he had met with in the use of Paquin's serum. Bonn's nuclein was not an antitoxin, but he had obtained results from its use which he had not been able to get with any other remedy.

DR. FLICK said that his treatment with iodoform and eucrophen is in line with that by antituberculin, and if it were possible to keep patients immune to the development of new foci the disease might be cured. If it were not for auto-intoxication patients might get well.

DR. BORLAND said he had not meant to cast any reflections upon the work of the bacteriologist. He valued the work of the laboratory man as highly as any, and he would be the last to disparage experiments which might lead to a method of producing immunity.

After the closure of this series of papers and discussions upon tuberculosis, a paper was read by DR. WOODS HUTCHINSON of Buffalo upon

SOME DEFORMITIES OF THE CHEST IN THE LIGHT OF ITS ANCESTRY AND DEVELOPMENT.

He divides all chests roughly into the quadrupedal chest, or dog-form, and the flat chest, or human form. The first is the primitive chest, produced by going upon all fours so that the only direction for expansion is anteriorly, while the flat chest was developed when primitive man became a climbing animal. The flat chest of the bat, due to the drawing up of the scapulæ by the action of the wings, was at one time supposed to place this animal in the same class with man instead of with rats. From a large number of measurements he has reached the conclusion that the familiar flat chest of consumptives is not flat at all, but, if he might make use of a Hibernianism, appears to be flat because it is so round. In other words, he believes it is a reversion toward the ancestral type, and that the chest approaches so nearly the round or quadrupedal form that the scapulæ have a tendency to slip off the shoulders when the person assumes a stooping attitude. The reason why tuberculosis attacks the lungs more frequently than any other organ of the body, according to the author of the paper, is because the lung is the organ of the least resistance, and the reason for this is that it is the youngest portion of the body from a biologic point of view.

The next paper, upon the

MANAGEMENT AND TREATMENT OF MALIGNANT TYPES OF CROUPOUS PNEUMONIA,

was read by DR. D. S. CAMPBELL of Detroit. He advocates the expectant plan of treatment, and called attention to the necessity of taking care of the heart in every way as this is the organ that is chiefly attacked. The fever should be combated by cold applications. From this plan of treatment he has obtained good results, both

in hospital and private practice. The mainstay in his treatment was the cold bath.

As a striking contrast to the main feature in Dr. Campbell's paper, the use of cold water, DR. J. EICHBERG of Cincinnati then presented a paper upon

THE HOT BATH IN THE TREATMENT OF PNEUMONIA.

The average temperature of the bath in his practice is 100° F., but it varies within a range of 95° in mild attacks to 110° F. in acute cases. The duration of the bath is ten minutes, and after being taken out the patients are wrapped in a warm, dry blanket, without previous drying, and put to bed, and after an hour are briskly rubbed. At first he had used the hot bath only for its antipyretic action, and had given it only when the temperature reached 103° F., but later he began giving the bath as a routine treatment irrespective of the height of the temperature. The bath is repeated every three hours, and he believes it is a powerful adjunct in the treatment of pneumonia. Strong evidence of the comforting effects of the bath is found in the fact that patients invariably ask for its repetition. It relieves all the distressing symptoms, especially the dyspnea. Respiration becomes slower, the temperature falls, delirium subsides, and many of the patients seem to void a larger quantity of urine. The pulse becomes slow, but only in the same proportion that the respiration becomes slower. The hot bath has the effect of "letting blood without losing it." In the treatment of his cases in this way he allowed the patient a full, nourishing diet. Drugs are not neglected, and he gives digitalis and strychnin as indications require. The hot bath may be given to patients of any age, the last patient he treated in this way being seventy-three years old. Cold cloths may be laid on the head and face during the administration of the bath, if desirable. Five or six baths a day are given during the febrile period, and one or two a day afterward. In his experience with this treatment seventy-four patients have recovered and nineteen have died. Six died suddenly on the second and third days.

CHEYNE-STOKES' RESPIRATION

was the title of the next paper, read by DR. N. S. DAVIS, JR., of Chicago. His attention had been directed to this subject some time ago, and in looking into it he was struck by the meager amount of literature relating to it. Cheyne-Stokes' respiration has been observed as an accompaniment of many disorders, and can be produced artificially. It occurs most frequently in cerebral affections, but has also been seen in hemophilia, in hemorrhage after operations, whooping cough, croupous pneumonia, and after tracheotomy. It occurs most frequently as a complication of chronic renal disorders. It seems to be the normal method of respiration among some animals during hibernation.

DR. H. B. ALLYN of Philadelphia read a paper upon

MULTIPLE NEURITIS IN INFLUENZA,

in which he stated that the great majority of cases are of toxic origin. The term "neuritis" was used for convenience. The milder type of influenza is more likely to give rise to neuritis than the severer forms. He believes

that the poison of influenza is a frequent cause of attacks of neuritis and multiple neuritis. The difference between neuralgia and neuritis is one of degree rather than of kind, and he thinks that a great many cases reported as neuralgia really are neuritis.

A CASE OF ACUTE LYMPHATIC LEUKEMIA WITH STREPTOCOCCUS INFECTION

was the title of a paper read by DR. J. B. HERRICK of Chicago. This case, which resulted fatally, was not allowed to go to autopsy, but a quantity of blood was taken from the heart immediately after death, and experiments made with it confirmed the diagnosis, and blood obtained from the finger two days before death showed streptococci. The question arose whether it was not a streptococcus disease with leukemic complications.

The next paper read was entitled

CHRONIC INFLAMMATION AND ULCERATION OF THE DUODENUM, WITH RESULTANT REFLEXES,

by DR. J. M. ALTEN of Kansas City, Mo. He stated that the disease is more common in women than in men because of the greater reflexes in the former, and occurs most frequently between the ages of twenty and forty years. It is frequently the result of typhoid fever, exanthemata, burns, etc. Inflammation of the duodenum will produce inflammation of the skin. It has long been a well-known fact that gastric disturbances cause insanity, but it has never been known why they do so. Epilepsy is also caused by reflexes, and a large number are the result of reflexes due to inflammation of the duodenum. He believes, also, that ulcer of the stomach is frequently the result of extension of ulcers of the duodenum, and that the latter are very much more common than the former. The treatment consists in keeping the organs at rest, and in maintaining the nutrition of the patient, resorting to rectal alimentation when necessary.

REVIEWS.

THE MULTUM IN PARVO REFERENCE AND DOSE BOOK. By C. HENRI LEONARD, M.A., M.D., Professor of the Medical and Surgical Diseases of Women, Detroit College of Medicine. Detroit: The Illustrated Journal Co., Publishers, 1896.

THIS is a new and enlarged edition of the Dose Book, printed and bound in a handy manner for the pocket. It gives the doses of over three thousand preparations, and also contains tables of poisons and antidotes, the solubility of drugs, abbreviations, urinary tests, schedule of fees, etc. It is a convenient and useful book of its kind.

ORGAN DISEASES OF WOMEN AND STERILITY CURABLE BY MEDICINES. By J. COMPTON BURNETT, M.D. Philadelphia: Boericke & Tafel, 1897.

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Let us now look into the actual condition present, and then we can more intelligently seek an appropriate remedy—not merely a temporary palliative.

The patient has just passed through a serious and violent disease which, although of comparatively brief duration, has profoundly affected the great nerve centers, and from which they naturally can recover but slowly. Through excessive weakness of the nervous supply of the vital organs, their functions are but feebly and imperfectly carried on. How many there are who date the beginning of a permanent state of decline to their attack of La Grippe.

The ordinary tonics—iron, quinine, strychnine, &c.—seem utterly unable to cope with this condition. In fact, it is not

stimulation that the patient needs, as by it he is only led to overtask his strength, and finally finds himself completely broken down. He needs a reconstruction of the worn-out tissues.

The remedy which will be effective, then, must be one that will convey to the tissues the revivifying and vitalizing agent, phosphorus, in its oxidizable and assimilable form. Thus the true vitality of the nerve structure is restored, and with it the healthy function is re-established. The process is not that of stimulation, or whipping up the exhausted powers, but is one of renewing the nutrition of the tissues themselves; hence, it is steady and sure in its progress and permanent in its results. The patient feels that he is gradually recovering his accustomed strength of mind and body.

The one form in which the compounds of phosphorus, as they exist in normal animal cells, can be conveyed to the tissues and there utilized is in the oxidizable form of the hypophosphites of lime and soda, chemically pure. It should be given early, and continued, at appropriate intervals, until the condition has been entirely overcome. Its favorable action in convalescence from acute diseases in general is especially marked in the disease under consideration. By its use many cases of chronic invalidism can be averted, and the susceptibility to intercurrent diseases corrected.

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